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ABSTRACT

Provided in this document is a bibliography of selected literature addressing the interface between forestry and the social sciences. References include articles appearing in American and foreign professional journals, bibliographies, conference proceedings, and other types of publications. A subject-matter classification scheme (in outline format) is provided at the beginning of the document. Entries (numbered 2141 to 2948) are listed alphabetically by author according to the topics indicated in this scheme. Major topic areas include social sciences applied to: (1) forestry at large (considering forest resources, economic development, policy, and other areas); (2) forest management (including ownership options and considerations, and other areas); (3) production of forest goods and services (covering outdoor recreation, wilderness management, wildlife and fish, wood production, and other areas); and (4) forest industries (considering wood-using industries, other forest industries, market and trade, and transportation). Each entry includes citation number, author(s), title, source, year, and number of pages. In addition, if the publication is not in English, the language used is indicated. Brief annotations are provided for most entries. An author index is included. (JN)

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No. 64 Sept. 1985

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A Current Selected Bibliography and Index

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PREFACE

This is the third issue of the Social Sciences in Forestry to be published at the University of Minnesota College of Forestry. We are continuing to index the backlog of relevant publications issued during 1982-1984.

References submitted by foreign cooperators are acknowledged by the addition of the cooperator's initials directly following the annotation. We welcome contributions of either references to publications or the publications themselves. We would also welcome additional foreign cooperators, particularly from countries not represented on the title page of this issue. Anyone interested in serving as a cooperator should write to us at the University of Minnesota Forestry Library, 1530 N. Cleveland Ave., St. Paul, MN 55108.

Loans or xerox copies of publications indexed in Social Sciences in Forestry are available from the Interlibrary Loan Division, St. Paul Campus Libraries, 1984 Buford Ave., St. Paul, MN 55108.

We gratefully acknowledge the contributions of three people who have helped to bring this issue to press: Theresa Surprenant, data entry operator, Keith Belli, programmer, and Clara Schreiber, word processing specialist.

Jean Albrecht
Patricia Rodkewich

CONTENTS

Page

Social Sciences Applied to Forestry at Large

General Publications.. 1
Forest Resources: Regional, National, International.......... 3
History... 6
Legislation... 9
Policy.. 10
Planning.. 12
Appraisal and Valuation..................................... 17
Investment and Finance...................................... 19
Taxation.. 23
Subsidization... 26
Economic Development.. 27
  Social and Communal Forestry.............................. 30
  Agroforestry.. 32
  Sector Analysis... 37
Professional Activities, Education, Employment of Foresters... 41
Research Evaluation and Methodology......................... 47
Technology Transfer and Extension........................... 49
Environmental Concerns...................................... 51

Social Sciences Applied to Forest Management

General... 55
Multiple-Use Management..................................... 56

Ownership

  General... 57
  Public Lands.. 58
  Private Ownership-General................................. 59
  Private-Industrial.. 60
  Private-Nonindustrial..................................... 61
Labor Considerations - Work Studies......................... 64
Protection.. 65

Production of Forest Goods and Services

Outdoor Recreation.. 72
Wilderness Management - Nature Conservation - National Parks.. 84
Range Management.. 88
Urban Forestry.. 89
Watershed Management.. 91
Wildlife and Fish... 92
Wood Production... 94
  Timber Harvesting... 99
  Timber Supply...101
  Timber Sales..103

Social Sciences Applied to Forest Industries

Wood-Using Industries.......................................105
Other Forest Industries.....................................110
Markets-Marketing-Trade.....................................111
Transportation..119

Author Index..120

SOCIAL SCIENCES APPLIED TO FORESTRY AT LARGE
GENERAL PUBLICATIONS

2141 Blyth, J.F., 1984. **Some notes on Italian forestry.** Scottish Forestry 38:78-82.

Notes recording a visit to forest areas in the Appenines south and east of Florence in July, 1982. Includes information on forest history, education, silviculture and management, forest reserves, etc.

2142 Ehrenreich, J.H. et al., 1982. **Forestry in China.** Rome, Food and Agriculture Organization of the United Nations. FAO Forestry Paper no.35. 305pp. + photos.

Includes chapters on forest resources, nature conservation, policy and planning, silviculture, forest products utilization, and forestry in rural and community development.

2143 Ekvall, H., 1983. **Skogsekonomisk teori och dess tillampning.** Sveriges Lantbruksuniversitet, Inst. for Skogsekonomi, Rapport nr.43. 166pp. + tables.

In Swedish. Provides definitions and analytical approaches to studying the economics of forests. Abundant examples are given to illustrate the calculations. (HMG)

2144 Frome, M., 1984. **The Forest Service.** Boulder, Colorado, Westview Press. 2d ed., rev. and updated. 364pp.

2145 Gill, J.G.S. and Malcolm, D.C., eds., 1984. **International aspects of forestry: Proceedings of a discussion meeting, Loughborough University of Technology, March 30-April 1, 1984.** Edinburgh, Institute of Chartered Foresters. 177pp.

2146 Julien, F.A., 1984. **New Brunswick's forests.** Forestry Report (Maritimes Forest Research Centre) no.1. 12pp.

Includes information on area classification, forest land ownership, volume of forest growing stock, forest products, employment, exports, forest management expenditures, fish and wildlife, etc.

2147 Julien, F.A., 1984. **Nova Scotia's forests.** Forestry Report (Maritimes Forest Research Centre) no.2. 12pp.

Includes information on forest land ownership by cover type, volume of forest growing stock, primary wood production, exports, etc.

2148 Julien, F.A., 1984. **Prince Edward Island's forests.** Forestry Report (Maritimes Forest Research Centre) no.3. 12pp.

Includes information on area classification, land ownership distribution, fuelwood consumption, employment, exports, revenues, expenditures, fish and wildlife statistics, etc.

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2149 Wardle, P.A., 1985. **A World Perspective: Forestry beyond 2000.** Unasylva 37(147):7-16.

Paper prepared for discussion of future perspectives in forestry at the Seventh Session of the FAO Committee on Forestry in Rome, 7-11 May, 1984.

2150 Aldhous, J.R., 1984. **Forest and woodland in Devon.** Forestry 57:85-103.

Based on the 1980 Census, the distribution, composition and ownership of woodland in Devon is described. The County of Devon is the third largest administrative county in England and Wales with a total area of 675,000 ha.

2151 Alemdag, I.S. and Bonner, G.M., 1985. **Biomass inventory of federal forest lands at Petawa: A case study.** Forestry Chronicle 61:81-86.

The inventory was designed to provide data on areas, wood volumes, and forest biomass.

2152 Alig, R.J., Adams, D.M., and Haynes, R.W., 1983. **Long-range projection of forest area change: New approaches are needed.** Journal of Forestry 81:723-727.

"This article (a) reviews historical trends in U.S. forest acreage; (b) examines the sensitivity of projected trends in products markets to future forest area patterns; (c) discusses major determinants underlying area trends; and (d)...discusses possible approaches for improving analyses of acreage trends." (p.723)

2153 Alig, R.J., 1985. **Modeling acreage changes in forest ownerships and cover types in the southeast.** U.S. Forest Service, Research Paper RM-260. 14pp.

2154 American Pulpwood Association Inc., 1985. **Where is the wood and who is going to own it?** Proceedings, Fall Meeting, Williamsburg, VA. Washington, D.C., American Pulpwood Assoc. Inc. 85-P-6. 29pp.

2155 Birdsey, R.A. and Weaver, P.L., 1983. **Puerto Rico's timberland.** Journal of Forestry 81:671-672, 699.

Summarizes the main findings of a forest inventory initiated in Puerto Rico in 1980.

2156 Craver, G.C., 1985. **Forest statistics for the mountains of North Carolina, 1984.** U.S. Forest Service, Resource Bulletin SE-77. 50pp.

2157 da Silva, J.C.G.L. and Hosokawa, R.T., 1984. **A ciencia florestal e a humanidade.** Floresta 15(1/2):26-49.

Authors' summary: "The main objective of this paper is to describe the world's forest and forestry development and to compare with the forest and forestry evolution in Brazil." Includes maps and tables relating to forest resources.

2158 Dykstra, D.P., 1983. **Forestry in Tanzania.** Journal of Forestry 81:742-746.

"Forests in Tanzania occupy nearly half of the country's total land area." (p.742)

2159 Hackett, R.L., 1982. **Timber volume in eastern South Dakota, 1980.** U.S. Forest Service, Research Note NC-282. 6pp.

2160 Hutchins, C.C., Jr., 1985. **Forest statistics for the Piedmont of North Carolina, 1984.** U.S. Forest Service, Resource Bulletin SE-76. 46pp.

"This report highlights the principal findings of the fifth forest survey in the Piedmont of North Carolina... The primary objective of the survey is to periodically inventory and evaluate all forest and related resources." (p.ii)

2161 Kennedy, R.W., 1985. **Lodgepole pine as a commercial resource in Canada.** In: Lodgepole pine, the species and its management: Symposium proceedings, 1984. Washington State University, Cooperative Extension. pp.21-23.

2162 Knight, H.A., 1985. **An overview of the timber resource in the Southeast.** In: American Pulpwood Assoc. Inc. Where is the wood and who is going to own it? APA 85-P-6. pp.3-11.

2163 Lanly, J.P., 1983. **Present situation and evaluation of tropical forest resources.** Mazingira 7(4):2-15.

2164 Raile, G.K., 1984. **Eastern South Dakota forest statistics, 1980.** U.S. Forest Service, Resource Bulletin NC-74. 60pp.

2165 Reardon, S., ed., 1984. **Forest resources in the northeast: Contributing to economic development and social well being.** Prepared by the State Foresters of the 20 Northeastern States. 52pp.

The report concludes that the region's forest resources can make significant contributions to the solution of the region's problems of unemployment, high energy costs and agricultural soil losses by creating additional jobs, providing fuelwood for energy, and stabilizing marginal agricultural lands.

2166 Rudis, V.A., Rosson, J.F., Jr., and Kelly, J.F., 1984. **Forest resources of Alabama.** U.S. Forest Service, Resource Bulletin SO-98. 55pp.

"Topics examined include the status and trends in forest area and timber volume by forest type, ownership, species, stand structure, growth, removals, mortality, management opportunities and timber products output."

2167 Salminen, S., 1984. **Suomen metsavarat ja niiden kehittyminen.** Silva Fennica 18:330-337.

In Finnish with English summary: "The Finnish forest resources and their development."

2168 Smith, W.B., 1984. **Timber resource of Wisconsin's Northwest Survey Unit, 1983.** U.S. Forest Service, Resource Bulletin NC-73. 97pp.

Presents highlights and statistics on area, volume, growth, mortality, removals, utilization, and biomass.

2169 Spencer, J.S., Jr., Strickler, J.K., and Moyer, W.J., 1984. **Kansas forest inventory, 1981.** U.S. Forest Service, Resource Bulletin NC-83. 134pp.

Text and statistics are presented on area volume, growth, mortality, removals, utilization, biomass, and future timber supply.

2170 Thomas, C.E. and McWilliams, W.H., 1985. **Midcycle survey of Mississippi's forest resources.** U.S. Forest Service, Resource Bulletin SO-101. 37pp.

2171 Uusitalo, M., ed., 1985. **Metsatilastollinen vuosikirja 1984; Skoksstatistisk arsbok 1984; Yearbook of forest statistics 1984.** Folia Forestalia no.620. 232pp.

Statistical data on Finnish forestry.

2172 VanHooser, D.D. and Keegan, C.E., III, 1985. **Lodgepole pine as a commercial resource in the United States.** In: Lodgepole pine, the species and its management: Symposium proceedings, 1984. Washington State University, Cooperative Extension. pp.15-19.

2173 Wall, B.R., 1983. **Future timberland area: A crucial but illusive variable in timber economy models.** Journal of Forestry 81:721-723.

"This article concerns the need for area projections by characteristics such as ownership class, site, species, volume class, and management interests." (p.721)

2174 Zinn, G.W. and Jones, K.D., 1985. **Forests and the West Virginia economy. Vol.2: The timber resource.** West Virginia Agr. and For. Expt. Station, Bulletin 691-vol.2. West Virginia Forest Development Series. 26pp.

2175 Callahan, J.C., 1985. **The mahogany empire of Ichabod T. Williams & Sons, 1838-1973.** Journal of Forest History 29:120-130.

2176 Cohen, M.P., 1984. **The pathless way: John Muir and American wilderness.** Madison, University of Wisconsin Press. 408pp.

2177 Feeny, D., 1984. **Agricultural expansion and forest depletion in Thailand, 1900-1975.** Yale University, Economic Growth Center, Center Discussion Paper no.458. 65pp.

"This paper examines the extent and causes of deforestation in Thailand... The evolution of Thai forest and conservation policy is traced." (abstract)

2178 Fontaine, R.G., 1985. **Forty years of forestry at FAO: Some personal reflections.** Unasylva 37(148):5-14.

Fontaine, former director of FAO's Forest Resources Division, worked for the organization for 27 years, retiring in 1974.

2179 Hasel, K., 1985. **Die Personlichkeit von Wilhelm Pfeil.** Allgemeine Forst- und Jagdzeitung 156:54-59.

In German; English and French summaries. Title of English summary: The personality of Wilhelm Pfeil, referring to his 200th birthday on 28th of March 1983. (WK,WK)

2180 Hasel, K., 1985. **Forstgeschichte--Ein Grundriss fur Studium und Praxis.** Hamburg, Paul Parey. Pareys Studientexte no.48. 260pp.

Within a period from the prehistoric origins until the present time, the book deals with the history of the forest area, the forest ownership and rights of use, the changes of forest legislation and administration and with the different kinds of forest utilization. (WK, WK)

2181 Hughes, J.D., 1985. **Theophrastus and the mountain forests of the ancient Mediterranean.** In: Schuler, A., ed. History of forest utilization and forestry in mountain regions. Beih. Schweiz. Z. Forstwes. 74:7-20.

2182 Kapp, G., 1984. **[Agroforestry in the Federal Republic of Germany.] Agroforstwirtschaft in Deutschland.** Allgemeine Forst- und Jagdzeitung 155:266-270.

In German. The author presents the practice of agroforestry and corresponding researches from the 18th and 19th centuries in Central Europe and their influences on the Taungya system in the tropics. (WK, WK)

2183 Koshika, K., 1985. **Socioeconomical and historical studies on the management of experiment forests--in the case of the Nakagawa Experiment Forest, Hokkaido University.** Hokkaido

University, College Experiment Forests, Research Bulletins 42(2):221-442.

In Japanese: English summary. The experimental forests of Hokkaido University were established between 1901 and 1923. The author traces the social and historical background of the forests in relation to their ownership and management by the university, and then discusses their use for educational research.

2184 Lage, A., 1985. **The evolution of forest economics: An interview with Henry J. Vaux.** Journal of Forest History 29:56-67.

2185 Linnard, W., 1985. **History of mountain forestry in Wales.** In: Schuler, A., ed. History of forest utilization and forestry in mountain regions. Beih. Schweiz. Z. Forstwes. 74:53-58.

2186 Mackintosh, B., 1985. **Harold L. Ickes and the National Park Service.** Journal of Forest History 29:78-84.

Harold Ickes was Secretary of the Interior from 1933 to 1945.

2187 Mackintosh, B., 1985. **Rock Creek Park: An administrative history.** U.S. National Park Service, History Division. 127pp. + map + illus.

2188 O'Carroll, N., ed., 1984. **The forests of Ireland: History, distribution and silviculture.** Dublin, Turoc Press; London, Marion Boyars. 128pp.

Edited for the Society of Irish Foresters by Niall O'Carroll.

2189 Paige, J.C., 1985. **The Civilian Conservation Corps and the National Park Service, 1933-1942: An administative history.** U.S. National Park Service. 249pp.

2190 Rea, T., 1985. **Irish state forestry: Government policy 1948-1959.** Irish Forestry 42(1):7-15.

2191 Robbins, W.G., 1985. **American forestry: A history of national, state, and private cooperation.** Lincoln, University of Nebraska Press. 344pp.

A history of the U.S. Forest Service's cooperation with states, private individuals, and companies.

2192 Rothman, H., 1985. **Conflict on the Pajarito: Frank Pinkley, the Forest Service, and the Bandelier Controversy, 1925-32.** Journal of Forest History 29:68-77.

The Bandelier National Monument, established in 1916, was the focus of a conflict between the Forest Service and National Park Service from 1925 until 1932 when the site was transferred from the Forest Service to the Park Service.

2193 Schuler, A., ed., 1985. **History of forest utilization and foresty in mountain regions.** Beihefte zur Schweizerischen

Zeitschrift fur Forstwesen no.74. 327pp.

Proceedings of a Symposium held in Zurich in Sept., 1984 by International Union of Forest Research Organizations Subject Group S6.07, Forest History. Selected articles are indexed in this section.

2194 Sieber, M., 1985. **History of the West African rain forest.** In: Schuler, A., ed. History of forest utilization and forestry in mountain regions. Beih. Schweiz. Z. Forstwes. 74:267-271.

2195 Todhunter, R.A., 1985. **Preservation, parks and the vice-royalty: Lord Dufferin and Lord Grey in Canada.** Landscape Planning 12:141-160.

"...Paper focuses on two such Govenor Generals, Lord Dufferin (1872-1878) and Lord Grey (1904-1911), and their efforts to promote progressive causes concerning the retention and preservation of Canadian natural and heritage environments." (p.141)

2196 Tucker, R., 1985. **Pastoralism and British Colonial forest management in the Western Himalayas.** In: Schuler, A., ed. History of forest utilization and forestry in mountain regions. Beih. Schweiz. Z. Forstwes. 74:245-254.

LEGISLATION

2197 Cubbage, F.W. and Siegel, W.C., 1985. **The law regulating private forest practices.** Journal of Forestry 83:538-545.

2198 Tisseverasinghe, A.E.K., 1985. **Forest law in Melanesia with particular reference to Papua New Guinea.** Klinkii 3(1):43-51.

2199 Baillet, C., 1984. **Forestry policy in the EEC.** In: Gill, J.G.S. and Malcolm, D.C., eds. International aspects of forestry. pp.141-146.

"Europe does not yet have a forestry policy in the true sense because of a legal dilemma posed by the Treaty of Rome, compounded by opposition from certain member states, notably the UK."

2200 Glueck, A., 1985. **Welche Konsequenzen ergeben sich aus dem Waldsterben aus politischer Sicht.** Forstwissenschaftliches Centralblatt 104:155-160.

In German; English summary. "Which political consequences result from the forest dieback?" The political answer on forest dieback is fourfold one: Promotion of research on its causes, reduction of the known and sufficiently suspected risk factors such as sulfur dioxide and nitrous oxides, promotion of international measures and development of intermediate strategies. (WK, WK)

2201 Gundermann, E. and Plochmann, R., 1985. **Die Waldwiede als forstpolitisches Problem im Bergwald.** Forstwissenschaftliches Centralblatt 104:146-154.

In German. English summary. "Forest pasture as a forest policy problem in mountain forests." The mountain forests of Upper Bavaria are burdened by pasture rights on about 75,000 ha. The occurrence of the forest dieback syndrome in the alpine mountains has made the removal of these rights an urgent task. (WK, WK)

2202 Hummel, F., 1984. **The future of forestry in the European Community.** Brussels, Centre for European Policy Studies. CEPS Working Documents no.9 (Economics). 49pp.

2203 Krott, M., 1985. **Erstaufforstungspolitik - vom Programm zur Wirklichkeit. Ergebnisse einer Implementationsstudie aus Baden-Wurttemberg.** Forstarchiv 56:167-170.

In German; English summary. Title of summ.: Afforestation--putting policies into practice: Results of a Baden-Wurttemberg implementation study. The paper considers the implementation of afforestation policies based on legislation in the fields of agriculture and land cultivation, forestry and nature conservation. (WK, WK)

2204 Niesslein, E. and Voss, G., editors, 1985. **Was wir uber das Waldsterben wissen.** Koln, Deutscher Instituts-Verlag. 259pp.

The book shows the different results of the complex research about the forest decline and gives informing instructions for political consequences. (WK, WK)

2205 Niesslein, E., 1985. **Forstpolitik. Ein Grundriss sektoraler**

Politik. Hamburg, Paul Parey. Pareys Studientexte no.47. 150pp. + fig. & tables.

A book, representing relevant facts and events in the field of forest policy, written for experts and students. (WK, WK)

2206 Palo, M.S., 1982. **Forest policy fundamentals in brief.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.219-230.

This article (1) describes briefly "certain internal aspects of forestry," and (2) "aims to clarify the scope and process of government forest policy making." (p.219)

2207 Plochmann, R., 1985. **Der Bergwald in Bayern als Problemfeld der Forstpolitik.** Allgemeine Forst- und Jagdzeitung 156:138-142.

In German; English summary. The article shows how the mountain-forests in Bavaria changed in composition and structure over at least five hundred years of utilization. (WK, WK)

2208 Steinlin, H., 1985. **Zur Forstpolitik tropischer Entwicklungslander, dargestellt am Beispiel der Republik Zaire.** Allgemeine Forst- und Jagdzeitung 156:173-175.

In German; English and French summaries. Zaire is one of the most important owners of tropical moist forests. The paper reports and discusses plans, proposed by the government, for a fast development of timber industry and export. (WK, WK)

2209 Stewart, P.J., 1985. **British forest policy: Time for a change?** Land Use Policy 2:16-29.

Presents a history of forestry policy in the UK. Argues that forestry policy should be a part of a comprehensive policy for the countryside.

2210 Twight, B.W. and Carroll, M.S., 1983. **Workshops in public involvement: Do they help find common ground?** Journal of Forestry 81:732-735.

2211 Baglien, J.W., 1984. **Concepts of allocation and scheduling in FORPLAN.** In: New forests for a changing world. Proceedings, 1983 Convention, Society of American Foresters. pp.489-492.

2212 Benjamin, R.D., 1982. **Congressional involvement in the 1980 RPA process.** In: Stairs, G.R. et al., eds. The RPA process. pp.70-76.

2213 Booth, T.H. and Saunders, J.C., 1985. **Applying the FAO Guidlines on Land Evaluation for Forestry.** Forest Ecology and Management 12:129-142.

This paper describes a trial application of the FAO guidelines on a study area in New South Wales. "The FAO guidelines proved to be an effective basis for forest land evaluation." (p.129)

2214 Breadon, R.E., 1983. **Timber development planning for the British Columbia Interior: The total-chance concept.** Vancouver, B.C., Forest Engineering Research Institute of Canada, Handbook no.4. 73pp.

"The 'Total-Chance' concept is the name given to early planning over an entire development area for the best overall realization of all objectives identified by broader planning." (p.1)

2215 Chappelle, D.E., 1982. **The analytic process: Is it equal to the task?** In: Stairs, G.R. et al., eds. The RPA process. pp.82-90.

2216 Cissel, J.H., 1984. **Representing spatial relationships in a forest planning LP model.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.507-511.

"The purpose of this paper is to describe how the Ochoco National Forest and Crooked River National Grassland incorporated spatial relationships into a forest planning LP model used to develop cost efficient land allocations and activity schedules." (p.507)

2217 Cole, L.A., 1985. **Forest resource planning: State of the states.** Lexington, KY, Council of State Governments. 14pp.

"This report represents an overview of various state forest planning efforts."

2218 Connaughton, K.P., Polzin, P.E., and Schallau, C., 1985. **Tests of the economic base model of growth for a timber dependent region.** Forest Science 31:717-725.

The economic base model "provides a quick, low-cost way for forest economists and planners to derive multipliers for evaluating the impact of forest management programs on local economies." Flathead County, Montana was chosen for the case study.

2219 Convery, F.J., 1982. **Determinants in futures planning.** In: Stairs, G.R. et al., eds. The RPA process. pp.91-95.

2220 Cooney, T.M. and Greber, B.J., 1985. **Operational planning on the microcomputer.** Journal of Forestry 83:468-469, 506.
Reviews two microcomputer programs, MOTHS and Planner's Tool Kit, that provide operations research tools that can be applied to solve forest management problems.

2221 Dubiansky, V.M., 1985. **A mainframe planning system for short-rotation industrial forests with specific reference to yield regulation.** South African Forestry Journal 132:65-68.
Paper presented at the Seminar on Information Management in Forestry held at the Faculty of Forestry, Stellenbosch, Nov. 15-16, 1984. Describes the Computerised Wattle Inventory and Planning System (CWIPS).

2222 Eriksson, L.O., 1982. **A management system for strategic forestry planning--a brief description of a management tool.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.245-254.

2223 Force, J.E. and McLaughlin, W.J., 1983. **Alternate processes for public input.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.121-126.
Discusses the role of public input in the forest land use planning process.

2224 Gadow, K. von, 1985. **Developing a computer-based forestry planning system.** South African Forestry Journal 132:73-75.
Paper presented at the Seminar on Information Management in Forestry held at the Faculty of Forestry, Stellenbosch, Nov. 15-16, 1984.

2225 Giltmier, J.W., 1982. **RPA: The promise and the final product.** In: Stairs, G.R. et al., eds. The RPA process. pp.24-31.

2226 Hamilton, T.E., 1982. **Moving along the learning curve: The RPA process for 1985.** In: Stairs, G.R. et al., eds. The RPA process. pp.96-102.

2227 Harlan, W.T., 1982. **Public involvement for RPA 1985.** In: Stairs, G.R. et al., eds. The RPA process. pp.77-78.

2228 Hendee, J.C., 1984. **Factors contributing to public concern about forestry.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.74-82.
"Public concerns about forestry emerge where the

perceived direction of forest policy and management runs counter to substantial public opinion." (p.81)

2229 Hewett, C.E., 1982. **Achieving the potential of the Resources Planning Act.** In: Stairs, G.R. et al., eds. The RPA process. pp.37-43.

2230 Hill, D.B., 1985. **Forest fragmentation and its implications in central New York.** Forest Ecology and Managment 12:113-128.

"Both historical and current land use practices have fragmented a forest resource, once covering virtually 100% of Onondaga County, NY, into small isolated forest habitat islands." " The negative implications of forest resource reduction or fragmentation should be considered by land use managers and planners."

2231 Hite, M.P. and Hewett, C.E., 1984. **Dealing with uncertainty in USDA Forest Service planning.** Hanover, N.H., Dartmouth College, Resource Policy Center, RP #504. unpaged.

The authors "demonstrate the potential role of incorporating uncertainty into policy analyses for the formulation of Forest Service policies and programs."

2232 Hosokawa, R.T. and Mendes, J.B., 1984. **Planejamento florestal (Technicas para manutencao da contribuicao do Sector Florestal a Economia Nacional).** Floresta 15(1/2):4-7.

Authors' summary: "The present paper shows the technical possibility to maintain the economical participation of the forest activity at the National level."

2233 Longeran, S.C. and Cocklin, C., 1985. **The use of input-output analysis in environmental planning.** Journal of Environmental Management 20:129-147.

2234 Lundgren, A.L., 1984. **Strategies for coping with uncertainty in forest resource planning, management and use.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.574-578.

2235 North Carolina Forestry Association, 1985. **Pathways for forestry in North Carolina.** Raleigh, North Carolina Division of Forest Resources. 36pp.

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2236 Nygren, H.T., 1984. **The future for planning in forestry decisionmaking.** In: New forests for a changing world. Proceedings, 1983 Convention, Society of American Foresters. pp.478-483.

2237 Nygren, T., 1984. **A new era in Forest Service planning.** Forest Planning 5(2):18-20.

2238 O'Toole, R., 1984. **Getting involved in forest planning.** Forest Planning 5(5):11-16.

The author describes 7 things people can do to help improve forest plans before publication.

2239 Rexler, R.A., 1982. **Key to the future: Renewable natural resources.** In: Stairs, G.R. et al., eds. The RPA process. pp.32-36.

Summarizes the 32 major recommendations of the National Conference on Renewable Natural Resources held in Washington, D.C., in 1981.

2240 Savill, P.S., 1983. **Land classification for plantation forestry.** Irish Forestry 40:78-91.

"The purposes of land classification as a basis for deciding land use strategies, and the main approaches to it are discussed...." (p.78)

2241 Spencer, R.D., 1984. **Comprehensive strategic land-use planning in Victoria.** Australian Forestry 47(1):45-57.

This paper "examines concepts of comprehensive strategic land-use planning and implications for foresters with particular reference to the preparation and implementation of Statements of Planning Policy in Victoria." (p.45)

2242 Stairs, G.R. and Maurer, E.J., 1982. **Scale, value, and opinion in the RPA process.** In: Stairs, G.R. et al., eds. The RPA process. pp.57-69.

2243 Stairs, G.R., Hamilton, T.E., and Matthews, M.L., editors, 1982. **The RPA process: Moving along the learning curve.** Durham, NC, Duke University, School of Forestry and Environmental Studies, Center for Resource and Environmental Policy Research. 102pp.

A collection of articles resulting from a U.S. Forest Service sponsored study by Duke University. Publication is undated; probable date is 1982.

2244 Stere, D.H., 1984. **Planning coordination between the state and federal agencies.** In: New forests for a changing world. Proceedings, 1983 Convention, Society of American Foresters. pp.484-488.

2245 Walker, H.D., 1985. **An alternative approach to goal programming.** Canadian Journal of Forest Research 15:319-325.

2246 Weintraub, A., Adams, R., and Yellin, L., 1982. **Land management planning: A method of evaluating alternatives.** U.S. Forest Service, Research Paper PSW-167. 12pp.

2247 Whaley, R.S., 1982. **Society of American Foresters and RPA.** In: Stairs, G.R. et al., eds. The RPA process. pp.53-56.

2248 Wolf, R.E., 1982. **Architects and achitecture.** In: Stairs, G.R. et al., eds. The RPA process. pp.5-23.

Traces events leading up to the passage of the Forest and Rangeland Renewable Resources Planning Act of 1974 and the National Forest Management Act of 1976.

2249 Zumeta, D.C., 1983. **An evaluation of low cost public involvement techniques.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.127-132.

Discussion of the cost effectiveness of various public involvement techniques in forest planning efforts.

2250 Armstrong, F.H., 1983. **Vermont forestland prices.** Journal of Forestry 81:295,326.

2251 Buongiorno, J. and Young, T., 1984. **Statistical appraisal of timber with an application to the Chequamegon National Forest.** Northern Journal of Applied Forestry 1:72-76.

"The purpose of appraising national forest timber is to determine its fair market value." "A statistical procedure to predict the market value of a sale and define the corresponding appraisal value is presented here...." (p.72)

2252 Campbell, M.J.J., 1985. **A woodland ranking system.** Arboricultural Journal 9:183-191.

Discussion of elements which form a woodland's amenity value and proposes a method for comparing them with others. Reviews current woodland evaluation methods. "Ranking woodlands does not give a financial value. It does, however, provide the foundation for the development of one." (p.190)

2253 Crocker, T.D., 1985. **On the value of the condition of a forest stock.** Land Economics 61:244-254.

"...Method to assess the economic value of the condition of a standing forest stock can help managers formulate policies and regulations for allocating scarce budgets between furthering the flow of harvested timber and the condition of the stock." (p.244)

2254 Kroth, W. and Bartelheimer, P., 1984. **[The forest decline as a problem in forest valuation.] Die Walderkrankung als Problem de Waldbewertung.** Forstwissenschaftliches Centralblatt 103:177-186.

In German; English summary. Appraisal of the damage caused by the forest decline, by a visibly increasing loss of vitality of the forest trees, brings up questions on methods and needs for information. (WK, WK)

2255 Kroth, W., 1985. **[Attaching monetary values to forest damages] Zur Bewertung der Waldschaden.** Forstwissenschaftliches Centralblatt 104:255-263.

In German; English summary. In this paper income losses or additional expenditures, respectively, were examined more closely by attempting to appraise the most important negative effects from the forest decline in respect to forestry. (WK, WK)

2256 Lofgren, K.-G. 1985. **On valuation consequences of the properties of the present value function.** Sveriges Lantbruksuniversitet, Institutionen for Skogsekonomi, Arbetsrapport no.45. 20pp.

2257 Pelcner, J. and Tutka, J., 1984. **Problematika ekonomiky lesneho**

hospodarstva. Lesnicki Studie 36:1-229.
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2258 Weimann, H.J. and Haub, H., 1985. **Vergleichende forstliche Bodenbewertung.** Allgemeine Forstzeitschrift 40:837-844.
In German. Based on purchase price statistics for agricultural land, current market values for forest land are derived with mathematical-statistical models in dependence on density of population, income productivity and temporal development. (WK, WK)

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2259 Anderson, W.C. and Krinard, R.M., 1985. **The investment potential of cottonwood sawtimber plantations.** In: Proceedings Third Biennial Southern Silvicultural Research Conference, 1984. U.S. Forest Service, Gen. Tech. Rep. SO-54. pp.190-197.

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2260 Atkinson, W.A., McNutt, J.A., and Thomson, T.A., 1984. **Practical limitations affecting investment levels.** In: New forests for a changing world: Proceedings, 1983 Convention, Society of American Foresters. pp.35-40.

"This paper examines, from a broad perspective, the components of stategy involved in forest industry investment." (p.35)

2261 Bullard, S.H., 1985. **Reforestation timing influences after-tax present value of costs.** Journal of Forestry 83:561.

2262 Cubbage, F.W. and Redmond, C.H., 1985. **Capital budgeting practices in the forest products industry.** Forest Products Journal 35(9):55-60.

2263 Dennis, D.F. and Remington, S.B., 1985. **The influence of price expectations on forestry decisions.** Northern Journal of Applied Forestry 2:81-83.

"Current and past prices help shape expectations of future timber prices which, in turn, influence a broad range of forest management decisions." (p.81)

2264 Elwood, N.E. and Kincaid, J.C., 1985. **ECON: A system for economic analysis with a programmable calculator.** Oregon State University, Forest Research Laboratory, Special Publication no.12. 20pp.

"Instructions are given for using program ECON to analyze financial performance of forestry or nonforestry projects...ECON calculates net present worth and net future worth, soil expectation value, benefit-cost ratio, and rate of return."

2265 Foster, B.B. and Brooks, G.N., 1983. **Rates of return: Internal or composite?** Journal of Forestry 81: 669-670.

"The internal rate of return should become a standard analytical measure for all forestry investments." (p.669)

2266 Franklin, E.C., 1985. **How to manage your woodlands profitably.** Forest Farmer 44(5):14-15.

2267 Gentle, S.W., 1985. **Case for investment or challenge to invest?** Commonwealth Forestry Review 64:211.

Summary of paper presented at the 12th Commonwealth Forestry Conference, Victoria, B.C., Sept., 1985.

2268 Graham-Tomasi, T., 1985. **Uncertainty, information, and irreversible investments.** University of Minnesota, Dept. of Agricultural and Applied Economics, Staff Paper Series P85-26. 33pp. + footnotes and refs.

2269 Harpen, A.H., 1984. **Inward investment to UK forests and wood processing industry.** In: Gill, J.G.S. and Malcolm, D.C., eds. International aspects of forestry. pp.61-69.

2270 Humphries, W.C., Jr., 1985. **How timber management decisions impact your rate of return.** Forest Farmer 44(9):22, 24.

2271 Jen, I-an, 1984. **An economic analysis on planting China fir (Cunninghamia Lanceolata (Lamb.) Hook) in Taiwan.** Taiwan Forestry Research Institute, Bulletin no.433. 24pp.

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2272 Malm, R.L. and McCollum, M.G., 1983. **Control of timber theft.** Journal of Forestry 81:371-372, 378.

"As timber values rise, forest products firms need to develop and maintain controls over thefts of one kind or another... Controlling involves methods and procedures to ensure that harvested timber reaches its proper final destination. Methods include accounting safeguards, field supervision, and internal audits." (p.371)

2273 Milliken, R.B. and Cubbage, F.W., 1985. **Trends in southern pine timber price appreciation and timberland investment returns, 1955 to 1983.** Georgia, Agricultural Experiment Station, Research Report No. 475. 35pp.

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2274 Mills, T.J. and Dixon, G.E., 1982. **Ranking independent timber investments by alternative investment criteria.** U.S. Forest Service, Research Paper PSW-166. 8pp.

"A sample of 231 independent timber investments were ranked by internal rate of return, present net worth per acre, and the benefit/cost ratio...to determine if the different criteria had a practical influence on timber investment ranking." (abstract)

2275 Nautiyal, J.C. and Rezende, J.L., 1985. **Forestry and**

benefit-cost analysis. Journal of World Forest Resource Management 1:189-198.

"The main difficulties in the application of benefit-cost analysis in forestry are explained and some solutions indicated. Lack of knowledge of production functions and of the economic nature, such as externality and public good, of non-timber products of forestry are identified as main problems." (p.189)

2276 Payandeh, B. and Field, J.E., 1985. **FIDME: Forestry Investment Decisions Made Easy.** Great Lakes Forest Research Centre, Information Report O-X-364. 22pp.

"This report discusses briefly the main problems associated with evaluating long-term forestry investments involving risk and uncertainty... A computer model ("FIDME") developed to evaluate such investments is then described."

2277 Puusepp., J., 1985. **Mobilizing private sector investments--the developed world.** Commonwealth Forestry Review 64:212.

Summary of paper presented at the 12th Commonwealth Forestry Conference, Victoria, B.C., Sept. 1985.

2278 Rasor, J.F., 1985. **Industry adjustments enhance value of small private forests.** Forest Farmer 44(9):8-9.

2279 Rinehart, J.A., 1985. **Institutional investment in U.S. timberlands.** Forest Products Journal 35(5);13-18.

"The economics of timberland ownership for wood products companies and prospective institutional buyers are discussed with respect to current economic changes."

2280 Robie, K.H. and Tarver, C.M., 1985. **Timber management is a good investment.** Forest Farmer 44(5):10-13.

"Timberland investments take time to earn profits, but for those who are patient the financial rewards can be great." (p.13)

2281 Russell, B.P., 1985. **Why invest in private woodlands or continue with them?** Quarterly Journal of Forestry 79:169-173.

"The findings of this research imply that many woodlands are not managed primarily for financial gain." (p.169)

2282 Schroeder, J.G. and Knight, H.A., 1984. **Estimating the present and future value of yellow-poplar stands.** In: Proceedings Twelfth Annual Hardwood Symposium, Hardwood Research Council. pp.28-38.

This paper provides a method for evaluating investments in stands of yellow poplar.

2283 Sedjo, R.A., 1984. **Evaluation of investment priorities.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.41-46.

"The economics of investments is examined and investment criteria by different ownerships are discussed. The effects of market considerations and public policy are also evaluated." (p.41)

2284 Settree, J.R., 1984. **Finance for forests.** In: Australian Forest Development Institute National Conference, 4th, 1984. Contributed papers. 11pp.

2285 Sizemore, W.R., 1985. **Can land and timber values outperform inflation?** Forest Farmer 44(9):18-19.

2286 South, P.M., 1985. **Making the best use of investment resources.** Commonwealth Forestry Review 64:215.

Summary of paper presented at the 12th Commonwealth Forestry Conference, Victoria, B.C., Sept., 1985.

2287 Sun, O., 1985. **Turkiye ormancilik sektorunde sermaye hasila oraninin saptanmasi.** Ormancilik Arastirma Enstitusu Yayinlari, Teknik Bulten Serisi no.143; Dergisi 62:17-37.

In Turkish; English summary: "Determination of the ratio of capital and production in forestry."

2288 Vasievich, J.M., 1984. **How to figure financial returns from hardwood timber management.** In: Proceedings Twelfth Annual Hardwood Symposium, Hardwood Research Council. pp.67-80.

Investments in hardwood silviculture can be profitable. A computer program, the FORESTRY INVESTMENT ANALYSIS PROGRAM, is described.

2289 Vasievich, J.M., 1985. **Investment opportunities in forestry: Growing pine timber in the South.** Agricultural Outlook Conference, Outlook '85, Proceedings. United States Department of Agriculture. pp.298-303.

Estimates for 1985.

2290 Zivnuska, J., 1984. **Rationale for investment in forest renewal.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.6-10.

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2291 Bertozzi, M., 1983. **Forest taxation exemptions: The New York experience.** Journal of Forestry 81:740-741.

2292 Boyd, R. and Daniels, B.J., 1985. **Capital gains treatment of timber income: Incidence and welfare implications.** Southeaster Center for Forest Economics Research, SCFER Working Paper no.14. 22pp.

"Results indicate that significant welfare losses and investment distortions stem from capital gains tax treatment of timber." (abstract)

2293 Boyd, R., 1985. **Forest taxation: Current issues and future research.** Southeastern Center for Forest Economics Research, SCFER Working Paper no.8. 34pp.

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2294 Clark, T.W., 1985. **In Maryland, taxes become incentives.** American Tree Farmer 4(3):14-15.

2295 Condrell, W., 1985. **Tax reform and tree farmers.** American Tree Farmer 4(3):12-13.

2296 Condrell, W.K. and Neidich, G., 1983. **Amendments made by Economic Recovery Tax Act of 1981 to Section 2032A for woodlands.** Timber Tax Journal 19:3-16.

Reprinted from Agricultural Law Journal, Fall, 1982, pp.346-363.

2297 Condrell, W.K., 1985. **Capital gains and other timber taxation.** Forest Farmer 44(5):54-56.

This article provides "a broad overview of the tax treatment of some key areas of interest to timber owners." (p.54)

2298 Demeree, F.A., 1985. **Forest taxation in New York State.** American Tree Farmer 4(3):16-17.

2299 Dennis, D.F., 1983. **Tax incentives for reforestation in Public Law 96-451.** Journal of Forestry 81:293-295.

2300 Field, D.B., 1983. **The influence of property taxation on hardwood forest management.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.33-37.

"Use value/productivity taxation has reduced the influence of property taxation on timber management decisions." (p.33)

2301 Hoover, W.L., 1985. **What constitutes fair and equitable tax treatment for tree farmers?** American Tree Farmer 4(4):9.

2302 Kronrad, G.D., 1985. **The threat to timber capital gains treatment is a threat to us all.** National Woodlands 8(4):5.

2303 Long, R.B., 1985. **Forest farmers deserve capital gains tax treatment.** Forest Farmer 44(9):13.
Comments on the Treasury II tax proposal by the U.S. Senator from Louisiana.

2304 Max, W.B., 1983. **Nonindustrial private landowner response to taxation.** Ph.D. thesis, University of Colorado, Boulder; Ann Arbor, MI, University Microfilms, Int. 126pp.
"This study develops a dynamic model of landowner behavior and uses it to analyze tax impacts." "The results point out that forest tax policies will only be effective in achieving the desired goals if they are designed with an understanding of the objectives of the landowners in mind." (p.iv)

2305 Siegel, W.C., 1985. **Federal income tax treatment of silvicultural costs associated with young pine stands.** In: Proceedings Third Biennial Southern Silvicultural Research Conference, 1984. U.S. Forest Service, Gen. Tech. Rep. SO-54. pp.183-189.
The Internal Revenue Code provides five methods for recovering silvicultural costs. "This paper reviews and analyzes the present law in terms of various silvicultural and protection practices associated with young pine stands." (p.183)

2306 Siegel, W.C., 1985. **What the new tax proposal would mean to timberland owners.** Forest Farmer 44(10):10-12.
Comments on President Reagan's tax reform proposal of May 29, 1985.

2307 Sveriges Lantbruksuniversitet, Institutionen for Skogstaxering, 1985. **Riksskogstaxeringen 60 ar: Jubileumssymposium i november 1983.** Sveriges Lantbruksuniversitet, Inst. for Skogstaxering, Rapport no.39. 150pp.
Contains 14 papers dealing with the history of forest taxation over the past 60 years.

2308 Taylor, S.A., 1983. **United States Forest Service timber cutting contracts: Federal income tax consequences on disposition.** Timber Tax Journal 19:17-31.

2309 Turnbull, G.K. and Boyd, R., 1985. **Dynamic adjustment to land taxation policy: Neutrality and welfare implications.** Southeastern Center for Forest Economics Research, SCFER Working Paper no.11. 18pp.

2310 Weaver, G.H. and Bullard, S.H., 1983. **Mississippi's severance tax and Forest Resource Development Program.** Journal of

Forestry 81:663-665.

"Mississippi's Forest Resource Development Program was the second state-sponsored forestry assistance program in the United States... It is funded by a severance tax levied at the point of first processing." The authors argue that severance taxes should be levied "on the basis of current product value." (p.663)

2311 Barron, E.H., 1984. **A privately funded approach to reforestation of private non-industrial lands.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.609-612.

Reports on a reforestation incentives program sponsored by the Texas Reforestation Foundation. It is a landowner assistance in forestry incentives program designed to help regenerate and improve Texas timberlands.

2312 Bethea, J.M. and Wishart, J.E., 1984. **FIP: Special-interest subsidy or tool for tomorrow?** American Forests 90(7):10-11, 52-54, 62-63.

Bethea argues that the Federal Forestry Incentives Program is of value: Wishart argues that "FIP amounts to a government subsidy that destroys a woodland owner's dignity and initiative...."

2313 Bethea, J.M., 1984. **Florida's reforestation incentives program.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.618-620.

2314 Delfino, K.L., 1984. **California forest improvement program.** In: New Forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.613-617.

Discusion of a cost share program for forest improvement projects on private lands.

2315 Ernst, C.T., Jr. and Marsinko, A., 1983. **Participation in the Forestry Incentives Program in Berkeley and Orangeburg Counties in South Carolina.** Clemson Univ. Dept. of For., Forest Research Series no.38. 21 pp. + app.

2316 Risbrudt, C.D., Kaiser, H.F., and Ellefson, P.V., 1983. **Cost-effectiveness of the 1979 Forestry Incentives Program.** Journal of Forestry 81:298-301.

2317 Buckingham, S., Francescon, A., Grossmann, W.D., and Lonnstedt, L., 1983. **Problems and prospects of developing countries in forestry and wood-processing industries: Report from an IIASA/UNIDO Workshop.** International Institute for Applied Systems Analysis. Working Paper WP-83-55. 16pp.

This paper summarizes the discussions of a workshop organized to discuss "the substantive issues related to long-term development possibilities of forestry and forest industry in less developed countries." (p.iii)

2318 Burley, J. and Hardcastle, P.D., 1984. **International aid in forestry; opportunities for the UK.** In: Gill, J.G.S. and Malcolm, D.C., eds. International aspects of forestry. pp.92-106.

2319 FAO, 1984. **Planificacion del desarrollo forestal: Material de lectura. Rome, Food and Agriculture Organization of the United Nations.** Estudio FAO Montes no.54. 200pp.

In Spanish.

2320 Farmer, B.M., 1985. **Forestry potentials in Virginia's rural development program.** In: Forestry Forum, 15th, 1983. Proceedings. pp.97-109.

Discusses the involvement of the Rural Virginia Development Foundation in the timber industry in Virginia.

2321 Financiamiento del Desarrollo Forestal en America Latina. Conferencia Regional Patrocinada por el Banco Interamericano de Desarrollo, Washington, D.C., 1982. **El sector forestal: Informe de paises; The forest sector: Country reports.** Washington, D.C., Inter-American Development Bank. Various pagings.

Regional conference on financing forest based development in Latin America.

2322 Forestry Forum, 15th, 1985. **Proceedings: Forest resources in regional economic development.** Sponsored by Virginia Cooperative Extension Service, Virginia Tech (and others). 109pp.

2323 Gregersen, H.M. and McGaughey, S.E., 1985. **Improving policies and financing mechanisms for forestry development.** Washington, D.C., Inter-American Development Bank, Economic and Social Development Dept. 110pp. + tables.

Draft report. "This study explores the alternatives for increasing the financing of forestry investment, especially for plantations, in Latin America by introducing forestry policies and better mechanisms for resource transfers to producers and investors, especially those in the private sector." (p.1)

2324 Gregersen, H.M. and McGaughey, S.E., 1984. **Los efectos sobre la**

distribucion de ingreso en la planificacion de proyectos forestales. Estudio FAO Montes 54:133-173.
In Spanish.

2325 Hyman, E.L., 1985. **Monitoring and evaluation of forestry projects for local community development.** Agricultural Administration 19:139-160.

2326 Kemp, R.H., 1984. **British forestry aid to developing countries.** In: Gill, J.G.S. and Malcolm, D.C., eds. International aspects of forestry. pp.81-91.
"Bilateral aid for forestry activities is given to some 20 countries by providing technical co-operation and project aid." (p.81)

2327 Kemp, R.H., 1985. **Co-ordination of bilateral aid in the Commonwealth with special reference to forestry.** Commonwealth Forestry Review 64:217.
Summary of paper presented at the 12th Commonwealth Forestry Conference, Victoria, B.C., Sept., 1985.

2328 Krugman, S.L., 1985. **Forest genetics and foreign policy.** Iowa State Journal of Research 59:529-539.
"U.S. forest genetics and tree improvement activities will play a larger role in the internation arena as our foreign aid program expands." (p.537)

2329 McGaughey, S.E., 1983. **Investment strategy for forest sector development in Latin America.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.272-275.

2330 Nelson, M., 1984. **La dimension ambiental en el analisis de proyectos forestales.** Estudio FAO Montes 54:175-200.
In Spanish.

2331 Obura, W.B.O., 1985. **The role of the African Development Bank.** Commonwealth Forestry Review 64:212-213.
Summary of paper presented at the 12th Commonwealth Forestry Conference, Victoria, B.C., Sept., 1985. Summarizes the Bank's role in funding development projects that will help to slow the rate of deforestation in Africa.

2332 Owino, F., 1982. **Regional cooperation and coordination in wood-production research.** In: Regional Workshop on Wood Energy in East Africa, Nairobi, 1982. Proc. pp.19-25.

2333 Regional Workshop on Wood Energy in East Africa, Nairobi, 1982. **Proceedings.** Ottawa, International Development Research Centre. IDRC-MR73e. 241pp.
Organized by the IDRC in collaboration with the African Energy Programme/Commonwealth Science Council.

2334 Valdes S., H. and Sanchez C., H., 1982. **Aspectos fiscales de la reforestacion.** In: Financiamiento del Desarrollo Forestal en America Latina. 25pp.

2335 Valdes S., H., 1982. **Politicas de finanaciamiento forestal en Columbia.** In: Financiamiento del Desarrollo Forestal en America Latina. 29pp.

2336 Webster, H.H., 1985. **Forestry: A target industry for economic development in Michigan.** In: Forestry Forum, 15th, 1985. Proceedings. pp.41-48.

Describes Michigan's experience in linking forestry with economic development.

2337 Aiyasamy, P.K., 1984. **Social forestry project in Tamil Nadu.** Coimbatore, Tamil Nadu Agricultural University. 31pp. + tables.

Summary report, third phase, second round, Social Forestry Monitoring Advisory Board.

2338 Arnold, J.E.M. and Minzava, E.M., 1985. **Forests for people--the developing country case.** Commonwealth Forestry Review 64:209-210.

Summary of paper presented at the 12th Commonwealth Forestry Conference, Victoria, B.C., Sept., 1985. This paper is concerned with "direct dependence of people in developing countries on forests and the output of forests."

2339 Baidya, K.N., 1984. **On some nontechnical constraints of Indian forestry.** Myforest 20:39-57.

2340 Furness, C.K., 1982. **Fuelwood production and the rural afforestation project in Zimbabwe.** In: Regional Workshop on Wood Energy in East Africa, Nairobi, 1982. Proc. pp.203-209.

2341 Gupta, M.P., 1982. **Role of forestry extension education in Himachal Pradesh.** In: Khosla, P.K., ed. Proceedings, National Symposium on Improvement of Forest Biomass, 1980. Solan, India, Indian Society of Tree Scientists. pp.323-327.

"Forestry Extension Education rather than Extension Forestry is the need of the day to actively involve people in forestry projects." (p.326)

2342 Hoskins, M.W., 1983. **Rural women, forest outputs and forestry projects.** Food and Agriculture Organization of the United Nations, FO:Misc/83/3. 27pp.

Review draft. "The present publication is intended to help those involved in planning and managing forestry projects to identify the specific concerns of women in the project area...and to facilitate women's participation and involvement."

2343 Jain, S., 1984. **Standing up for trees: Women's role in the Chipko Movement.** Unasylva 36(146):12-20.

"The Chipko Movement...is endeavoring to alter the Government's forest policy by insisting on maintenance of the traditional status quo in the Himalayan and other forest regions of India." (p.12)

2344 Nagaraja, S., 1984. **Forestry for development of rural forests.** Myforest 20:6-7.

2345 Pulhin, J.M., 1985. **The profits and perils of social forestry in the Philippines.** Philippine Lumberman 31(3):24-27, 37.

2346 Rai, S.N., 1985. **Social forestry in Haryana--a case study.**

Myforest 21:15-19.

2347 Shah, S.A., 1984. **Social forestry--a vital production system.** Indian Forestry 110:1073-1077.

2348 Thrupp, L.-A., 1984. **Women, wood and work: In Kenya and beyond.** Unasylva 36(146):37-43.

Discusses the involvement of women in Kenya in fuelwood projects.

2349 Tiwari, K.M., 1983. **Social forestry as an aid to environmental conservation.** Van Vigyan 21(1&2):1-8.

2350 Tiwari, K.M., 1983. **Social forestry for rural development.** Dehra Dun, International Book Distributors. 108pp.

2351 Tiwari, K.M., 1983. **Social forestry in India.** Dehra Dun, Natraj Publishers. 296pp.

2352 Vedant, C.S., 1985. **Will social forestry make an impact?** Myforest 21:11-13.

2353 Arnold, J.E.M., 1983. **Economic considerations in agroforestry projects.** Agroforestry Systems 1:299-311.

"Economic benefits that can accrue to the small farmer from incorporating trees in his farm system, and the economic constraints and costs he may face in doing so, are reviewed." "The present paper is concerned with certain aspects of agroforestry practices in small farmer production systems in the developing world." (p.299)

2354 Aterrado, V.R., Raies, E.R., and Sison, J.C., 1982. **Agroforestry: An abstract bibliography.** College, Laguna, Philippines, Southeast Asian Regional Center for Graduate Study and Research in Agriculture. 120pp.

2355 Blandon, P., 1985. **Agroforestry and portfolio theory.** Agroforestry Systems 3:239-249.

"Portfolio theory is used to analyse the risk of hypothetical agroforestry systems."

2356 Cameron, D., 1984. **The potential for agroforestry in South-East Queensland.** In: Australian Forest Development Institute National Conference, 4th, 1984. Contributed papers. 13pp.

2357 Costantoura, P., 1985. **Does agroforestry have a future?** Rural Research 127:21-27.

An economic study in western Australia found long-term profits from agroforestry are possible.

2358 di Castri, F., Celecia, J., and Hadley, M., 1983. **From research to communication in agroforestry: Some insights from the MAB Programme.** Agroforestry Systems 1:189-203.

"Attempts within the Man and Biosphere (MAB) Programme of Unesco to produce research findings and information materials useful for education and training in agroforestry are outlined." (p.189)

2359 Dove, M.R., 1983. **Theories of swidden agriculture, and the political economy of ignorance.** Agroforestry Systems 1:85-99.

"Swidden agriculture is today the focus of a great deal of debate in the context of agroforestry development in humid, tropical countries. This paper argues that much of this debate deals not with the empirical facts of swidden agriculture, however, but rather with widely-accepted myths.... The paper examines three of these myths in some detail." (p.85)

2360 Fortmann, L. and Riddell, J., 1985. **Trees and tenure: An annotated bibliography for agroforesters and others.** Madison, University of Wisconsin Land Tenure Center; Nairobi, International Council for Research in Agroforestry. 135pp.

2361 Fortmann, L. and Rocheleau, D., 1984. **Why agroforestry needs women: Four myths and a case study.** Unasylva 36(146):2-11.
"In agroforestry projects the involvement of women is essential in project definition, design and implementation. Yet women still, for the most part, are being excluded from involvement." (p.2)

2362 Garrett, H.E. and Kurtz, W.B., 1983. **Silvicultural and economic relationships of integrated forestry-farming with black walnut.** Agroforestry Systems 1:245-256.
"Black walnut lends itself especially well to multicropping due to the high value of its wood and the production of a nut crop. However, due to the limited availability of information it has never been sufficiently evaluated to demonstrate its relative desirability as a land use alternative." (p.245)

2363 Huxley, P.A., 1985. **Experimental agroforestry--progress through perception and collaboration?** Agroforestry Systems 3:129-138.
"Experimental agroforestry will best be encouraged and assisted...if we first derive the appropriate research methodologies, exchange information and ideas about these and, finally test them in the field." (p.137)

2364 Hyman, E.L., 1983. **Loan financing of smallholder treefarming in the provinces of Ilocos Norte and Ilocos Sur, the Philippines.** Agroforestry Systems 1:225-243.
Reports on an unsuccessful World Bank financed scheme to produce fuelwood for the small-scale tobacco-curing industry in the Ilacos region of the Philippines.

2365 Lagemann, J. and Heuveldop, J., 1983. **Characteristics and evaluation of agroforestry systems: The case of Acosta-Puriscal, Costa Rica.** Agroforestry Systems 1:101-115.

2366 Maydell, H.J. von, 1985. **The contribution of agroforestry to world forestry development.** Agroforestry Systems 3:83-90.

2367 Mueller-Darss, H., 1983. **The significance of ergonomics to agroforestry, Part II.** Agroforestry Systems 1:205-224.
Part I of this article dealt with the theoretical background of ergonomics and its role in rural development. This second part points out the economic and social advantages of ergonomically-oriented planning of rural development." (p.205)

2368 Mueller-Darss, H., 1982. **The significance of ergonomics to agroforestry, Part I.** Agroforestry Systems 1:41-52.
"Ergonomics aiming at harmonization of work and production with human and social needs of the rural population can substantially contribute to promote agroforestry in the tropical world." (p.41)

2369 Nair, P.K.R., 1985. **Classification of agroforestry systems.** Agroforestry Systems 3:97-128.

2370 Neil, P.E. and Jacovelli, P.A., 1985. **Agroforestry as an aid to rational rural development in Vanuatu.** Commonwealth Forestry Review 64:259-266.

2371 Owino, F., 1982. **An assessment of forestry programs in Kenya.** In: Regional Workshop on Wood Energy in East Africa, Nairobi, 1982. Proc. pp.75-80.

2372 Padoch, C., Chota Inuma, J., DeJong, W., and Unruh, J., 1985. **Amazonian agroforestry: A market-oriented system in Peru.** Agroforestry Systems 3:47-58.

"The data presented demonstrate that Amazonian cyclic agroforestry systems are capable of being commercially successful enterprises and of serving as possible models for further agricultural development." (.47)

2373 Patel, V.J., 1984. **A new strategy for high density agroforestry.** 2d. ed., rev. and enl. Surendrabag, Gujarat, India, Jivrajbhai Patel Agroforestry Centre. 104pp.

Includes a chapter on "economic efficiencies."

2374 Payne, W.J.A., 1985. **A review of the possibilities for integrating cattle and tree crop production systems in the tropics.** Forest Ecology and Management 12:1-36.

2375 Posey, D.A., 1985. **Indigenous management of tropical forest ecosystems: The case of the Kayapo Indians of the Brazilian Amazon.** Agroforestry Systems 3:139-158.

2376 Raintree, J.B. and Young, A., 1983. **Guidelines for agroforestry diagnosis and design: An introduction to the ICRAF methodology.** Nairobi, International Council for Research in Agroforestry, Working Paper no.6; Diagnostic and Design Methodology Manual Series no.1. 25pp.

Draft for comment.

2377 Raintree, J.B., . **Bioeconomic considerations in the design of agroforestry intercropping systems.** Nairobi, International Council for Research in Agroforestry. 18pp. + figures & tables.

"Following a discussion of bioeconomic considerations involved in deciding when it is advantageous to add trees to arable crop fields, the main bioeconomic principles for a decision on the optimum number of trees are presented. Budgeting techniques are discussed and an illustration is given of the use of linear programming as a practical bioeconomic design tool in agroforestry." (p.1)

2378 Raintree, J.B., ed., 1983. **Resources for agroforestry diagnosis**

and design: A handbook of useful tools and materials. Nairobi, International Council for Research in Agroforestry, Working Paper no.7; Diagnostic and Design Methodology Manual Series no.2. 383pp.

Draft for comment.

2379 Sholto-Douglas, J. and Hart, R.A. de J., 1984. **Forest farming: Towards a solution to problems of world hunger and conservation.** New ed. London, Intermediate Technology Publications. 207pp.

2380 Vergara, N.T., 1981. **Integral agro-forestry: A potential strategy for stabilizing shifting cultivation and sustaining productivity of the natural environment.** Honolulu, East-West Center, Environment and Policy Institute, Working Paper. 33pp.

2381 Vergara, N.T., ed., 1982. **New directions in agroforestry: The potential of tropical legume trees. Improving agroforestry in the Asia-Pacific tropics.** Honolulu, East-West Center, Environment and Policy Institute, Working Group on Agroforestry. 52pp.

Includes sections on: the concept of agroforestry; economic, social, and environmental benefits from agroforestry, limitations of agroforestry, and strategies for promoting agroforestry.

2382 Vergara, N.T., ed., 1982. **New directions in agroforestry: The potential of tropical legume trees. Initial tasks in agroforestry projects.** Honolulu, East-West Center, Environment and Policy Institute, Working Group on Agroforestry. 9pp.

2383 Vergara, N.T., ed., 1982. **New directions in agroforestry: The potential of tropical legume trees. Economic evaluation of agroforestry projects.** Honolulu, East-West Center, Environment and Policy Institute, Working Group on Agroforestry. 23pp.

2384 Vergara, N.T., ed., 1982. **New directions in agroforestry: The potential of tropical legume trees. Sustained outputs from legume-tree-based agroforestry systems.** Honolulu, East-West Center, Environment and Policy Institute, Working Group on Agroforestry. 36pp.

2385 Weber, F. and Hoskins, M., 1985. **Agroforestry in the Sahel.** Blacksburg, VA, Virginia Polytechnic Institute. 102pp.

A concept paper based on the Niamey Agroforestry Seminar 23 May-9 June 1983. Jointly sponsored by Comite Permanent Interetats de Lutte contre la Secheresse dans le Sahel; U.S. AID; South East Consortium for International Development; and VPI.

2386 Wiersum, K.F., 1985. **Trees in agricultural and livestock development.** Netherlands Journal of Agricultural Science 33:105-114.

2387 Wiff, M., 1984. **Honduras: Women make a start in agroforestry.** Unasylva 36(146):21-26.

2388 Young, A., 1983. **An environmental data base for agroforestry.** Nairobi, International Council for Research in Agroforestry, Working Paper no.5. 61pp.

"An environmental data base has the function of relating different kinds of information in agroforestry research to a common basis of environmental information." (p.1)

2389 Adams, D. et al., 1982. **Considerations in future development of the IIASA Forest Sector Project: Model structure, product demand models, product category definition, geographical, aggregation, and data availability.** International Institute for Applied Systems Analysis. Working Paper WP-82-108. 37pp.

2390 Adams, D., Kallio, M., and Seppala, R., 1982. **Structural change in the forest sector: The Forest Sector Project.** Laxenburg, Austria, International Institute for Applied Systems Analysis. Mimeo. 24pp.

2391 Andersson, A.E., Olsson, M.-O., and Zackrisson, U., eds., 1983. **Forest sector development: Issues and analysis.** University of Umea, Swedish College of Forestry, Research Report 1983:1. 195pp.

Includes material presented at the Umea meeting of the Nordic Forest Sector Modellers, June, 1982. The topics discussed included international trade models, national input-output models, forest sector models, technology analysis, etc.

2392 Andersson, A.E., Lonnstedt, L., and Olsson, M.-O., editors, 1982. **Proceedings from a Nordic Workshop on Models of the Forest Sector, Hemavan, April 14-18, 1980.** University of Umea, Swedish College of Forestry, Research Report 1982:1. 327pp.

"Topics discussed included: international trade models, national input-output models, forest sector models, technology analysis, regional forest sector models, and corporate and plant models."

2393 Andersson, A.E., 1983. **Research and development for the forest sector.** In: Andersson, A.E. et al., eds. Forest sector development. pp.133-155.

2394 Andersson, A.E., 1982. **The Swedish forest sector: Problems, methods, models.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.5-31.

2395 Buongiorno, J., 1984. **Pronosticos a largo plazo en el analisis sectorial forestal.** Estudio FAO Montes 54:57-131.

In Spanish.

2396 Economic Commission for Europe, 1983. **Forest and forest products country profile: Hungary.** Timber Bulletin for Europe, vol.35, suppl.7. 31pp.

2397 Forssell, O., 1983. **Studying the development of the forest sector using the Finnish long-range model system.** In: Anersson, A.E. et al., eds. Forest sector development. pp.60-73.

"The Finnish long-range model system (FMS) was developed for studying the growth possibilities of the Finnish economy. It is composed of three submodels: the price model, the output model and the income model." (p.60)

2398 Forssell, O., 1982. **The Finnish input-output model in relation to the forest sector.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.71-86.

2399 Gerritse, A.J. and de Wit, A.P.W., 1985. **De Nederlandse houtsectorstudie: doel en opzet.** Nederlands bosbouwtijdschrift 57:147-156.

In Dutch with English summary: "The Dutch forest sector study."

2400 Grossmann, W.D., 1983. **Dynamics of the forest sector: Problems and policies.** International Institute for Applied Systems Analysis. Working Paper WP-83-72. 24pp.

2401 Hultkrantz, L., 1983. **Forest resources as a basis for regional development in northern Sweden.** In: Andersson, A.E. et al., eds. Forest sector development. pp.156-168.

2402 Instituto Forestal (Santiago, Chile), 1984. **Caracterizacion del sector forestal chileno durante 1983.** Santiago, Instituto Forestal, Serie Informatica no.19. 77pp.

In Spanish.

2403 Kalgraf, K., Kempe, C., and Lonnstedt, L., 1983. **The process of designing an interactive simulation model for strategic planning of the Swedish forest sector.** In: Andersson, A.E. et al., eds. Forest sector development. pp.182-192.

2404 Kallio, M. and Soismaa, M., 1983. **Steady state analysis of the Finnish forest sector.** International Institute for Applied Systems Analysis. Working Paper WP-83-53. 33pp.

"This paper is a specific study of the Finnish forest sector. Its goal is to analyze one of the main cost factors, the wood cost, and the effect of this internally priced factor on the competitiveness the Finnish forest industry." (p.iii)

2405 Lonnstedt, L., 1983. **A forest sector prototype model--the simplified model structure.** International Institute for Applied Systems Analysis. Working Paper WP-83-68. 23pp.

"This paper concentrates on a verbal and graphical description of the main elements and their linkages, of a prototype model which has been developed within IIASA's Forest Sector Project. This description creates the base for a computer model." (p.v)

2406 Lonnstedt, L., 1983. **Mathematical formulation of a forest sector prototype model.** International Institute for Applied Systems Analysis. Working Paper WP-83-69. 39pp.

"The model is developed for analyzing in a 20-30 years perspective, the impact of cost competitiveness and wood availability on the structural change of the forest sector under investigation. The model is intended to be used by decision makers at strategic discussions about possible futures of the forest sector." (p.v)

2407 Lonnstedt, L., 1982. **Transition strategies for the Scandinavian forestry sector.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.186-193.

2408 McGaughey, S.E. and Thorbecke, E., 1984. **Analisis del sector forestal: Metodos para examinar politicas y programas.** Estudio FAO Montes 54:1-56.
In Spanish.

2409 Nyhus, D., 1982. **The INFORUM system of input-output models and its relationships to the forestry industry.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.52-70.
"This paper presents a system of national econometric models linked by a model of international trade." (p.52)

2410 Persaud, W.H., 1982. **The forestry sector of Jamaica.** In: Financiamiento del Desarrollo Forestal en America Latina. 14pp.

2411 Ramdial, B.S. and Chapman, I., 1982. **Trinidad and Tobago--forestry sector report (brief overview).** In: Financiamiento del Desarrollo Forestal en America Latina. 8pp.

2412 Riihinen, P., 1984. **Metsatalous suomen kansantaloudessa.** Silva Fennica 18:315-318.
In Finnish with English summary: "Forestry in the Finnish national economy."

2413 Seppala, R., Lonnstedt, L., and Morgan, A., 1983. **Strategic planning of the forest sector: Summary report of a Nordic meeting.** International Institute for Applied Systems Analysis. Working Paper WP-83-85. 25pp.
Provides a brief summary of the Nordic Meeting for Strategic Planning of the Forest Sector, held in Jyvaskyla, Finland, March, 1982.

2414 Solberg, B., 1982. **A macro-economic model as a basis for long-term forest sector analysis in Norway.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.87-116.

2415 Uronen, P., 1982. **Microproblems of the forest sector.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.32-51.

Deals with "the problems, changes and demands as seen inside a corporation and/or mill and how systems analysis could be used there more effectively in solving these problems." (p.32)

2416 Wallace, T.D. and Newman, D.H., 1985. **A production function analysis of the North Carolina forestry sector.** Southeastern Center for Forest Economics Research, SCFER Working Paper no.15. 36pp.

"The objective of this paper is to present a method for examining regional forestry production using the North Carolina forestry sector as an example." (p.2)

2417 Watson, R.S., 1983. **New Brunswick forest industry and forest resources: An overview.** New Brunswick Dept. of Natural Resources. 30pp.

" A background paper for the N.B. Private Woodlot Resources Study." (t.p.)

PROFESSIONAL ACTIVITIES, EDUCATION, EMPLOYMENT OF FORESTERS

2418 Albertson, M.H., 1984. **Women in the USDA Forest Service.** Unasylva 36(146):46-47.

2419 American Society of Consulting Arborists, Inc., 1984. **1984 membership directory.** North Brunswick, NJ, American Society of Consulting Arborists, Inc. 22pp.

2420 Ashmole, M., 1984. **The International Union of Societies of Foresters.** In: Gill, J.G.S. and Malcolm, D.C., eds. International aspects of forestry. pp.156-160.

2421 Association of Consulting Foresters, 1985. **1985 membership specialization directory.** Bethesda, MD, Association of Consulting Foresters. 365pp.

2422 Baumgartner, D.M., Zabel, R., Hanley, D., Cluff, B., et al., 1985. **Washington consulting foresters directory.** Washington State University, Cooperative Extension EB 1303. 19pp.

2423 Bigalke, R.C., 1983. **Forestry and resource conservation. What is the role of the forester in South Africa?** South African Forestry Journal 126:12-14.

2424 Bjerkelund, T. and Smith, N., 1984. **A forest engineering prospectus.** In: Corcoran, T.J. et al., eds. Research and education challenges and opportunities in our cooperative future. Univ. of Maine, College of For. Res. pp.15-18.

2425 Boerner, D.A., 1985. **110 years of AFA action.** American Forests 91(9):18-19.

Historical notes about the American Forestry Association.

2426 Bordman, J., 1982. **Forestry training manual, Inter-America Region, U.S. Peace Corps.** Office of Program Development, Forestry/Natural Resource Sector, Peace Corps. 390pp.

2427 Brown, G.N., 1984. **An administrative prospectus for Maine, USA.** In: Corcoran, T.J. et al., eds. Research and education challenges and opportunities in our cooperative future. Univ. of Maine, College of For. Res. pp.1-4.

2428 Buggel, H., 1984. **Aspekte der inhaltlichen und methodischen Darstellung des Lehrgebietes "Okonomie der Forstwirtschaft der Entwicklungslander."** Beitrage fur die Forstwirtschaft 18:181-183.

In German with English summary: "Aspects concerning content and methods applied in reviewing the teaching subject "economics of forestry in developing countries."

2429 Burdge, R.J., 1985. **The coming separation of leisure studies from parks and recreation education.** Journal of Leisure Research 17:133-141.

"The basic premise of this paper is that leisure studies or the scientific study of 'leisure' should not be housed with college level programs in parks and recreation education." (p.133)

2430 Burrus-Bammel, L.L., 1983. **Responsibilities of educators in forestry: Special emphasis on females, minorities, and foreign students.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.301-306.

2431 Chesney, C.E., 1983. **Responsibilities of the forestry profession to evaluate education and employment of minorities.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.307-311.

2432 Christensen, R.R. and Heinrichs, J., 1985. **The coming forester shortage.** Journal of Forestry 83:412-418.

The authors state that "according to SAF survey data, it's time to stop turning students away from forestry. Chances are that there will be a serious shortage of bright entrants within the next few years. In fact, within 5 to 8 years there may not be enough foresters of any kind." (p.413)

2433 Christensen, R.R., 1983. **Forestry school enrollment and degrees granted, 1971-1981.** Journal of Forestry 81:660-662.

2434 Corcoran, T.J., Nieuwenhuis, M.A., and Vicary, B.P., editors, 1984. **Research and education challenges and opportunities in our cooperative future: A proceedings of the faculty exchange in forest resources.** University of Maine, College of Forest Resources. 28pp.

On cover: Faculty exchange in forest resources; Laval University, University of New Brunswick, University of Maine.

2435 Cruz, C.A., 1984. **Filipino women in forestry.** Unasylva 36(146):44-45.

"The participation of Filipino women in forestry activities is by now a recognized fact."

2436 Danbury, D.J., 1984. **Education, training and voluntary service.** In: Gill, J.G.S. and Malcolm, D.C., eds. International aspects of forestry. pp.73-80.

A discussion of the value of international exchange in forestry education.

2437 Elovirta, P. and Ihalainen, R., 1984. **Metsa-ja maatalousammatit nuorten ammattisuunnitelmissa.** Folia Forestalia no.591. 35pp.

In Finnish; English summary: "Young people's professional plans in forestry and agriculture."

2438 Fazio, J.R., 1984. **Fulfilling the needs of forestry students in developing communication skills.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.599-602.

2439 Godbey, G., 1985. **The coming cross-pollination of leisure studies and recreation and park education: A response.** Journal of Leisure Research 17:142-148.

"There is increasing evidence of a coming together of Leisure Studies and Recreation and Park Education which is mutually beneficial." (p.142) A response to Burdge's article in the same issue.

2440 Hardy, Y., 1984. **An administrative prospectus for Eastern Canada.** In: Corcoran, T.J. et al., eds. Research and education challenges and opportunities in our cooperative future. Univ. of Maine, College of For. Res. pp.5-6.

2441 Hendee, J.C., 1985. **Women in natural resources: Reflections and projections of change.** Women in Forestry 7(2):9-11.

2442 Herrera, F., Betancourt, Y., and Gonzalez, E., 1984 **Die Ausbildung von Forstingenieuren in Kuba und ihre Bedeutung fur die tropischen Lander.** Beitrage fur die Forstwirtschaft 18:163-166.

In German with English summary: "Training forest engineers in Cuba and its significance for the tropical countries."

2443 Irland, L.C., 1984. **The New Forest: Achieving and retaining favorable public opinion and supportive public policy.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.24-28.

The author states that "Favorable public opinion and supportive public policy are critical to our profession's efforts to create the New Forest." Professional leadership will be required. The public image of foresters will have to change.

2444 Jensen, E.C., 1984. **Oregon State University's forestry education project: Getting forestry into public schools.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.605-608.

A consideration of forestry education at the pre-college level.

2445 Kennedy, J. and Mincolla, J.A., 1985. **Career development and training needs of entry-level wildlife/fisheries managers in the USDA Forest Service.** Women in Forestry 7(2):3-6.

2446 Keppie, D.M. and Owen, R.B., Jr., 1984. **A wildlife prospectus. In: Corcoran, T.J. et al., eds. Research and education challenges in our cooperative future.** Univ. of Maine, College of For. Res. pp.25-28.

2447 Kossuth, S.V., 1983. **Employer's responsibilities to young female and minority professionals in forestry.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.298-300.

2448 Laarman, J.G. and Durst, P.B., 1984. **International linkages and activities at North American forestry schools.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.530-534.

Almost half of the accredited forestry schools in the U.S. and Canada "report twinning relationships or other linkages with foreign institutions." "The extent of these linkages and activities is highly variable from one forestry school to another." (p.530)

2449 Loschau, M., 1984. **Hochschulausbildung fur die Forst-und Holzwirtschaft tropischer Lander.** Beitrage fur die Forstwirtschaft 18:151-156.

In German with English summary: "Academic training in the forestry and forest products industry of tropical countries."

2450 McKelvey, P.J., 1984. **Eighteen years on: A progress report, and assessment of the future, for the School of Forestry.** New Zealand Journal of Forestry 29:9-23.

Reports on the School of Forestry at the University of Canterbury, Christchurch, N.Z.

2451 McPherson, E.G., 1984. **Employer perspectives on arboriculture education.** Journal of Arboriculture 10:137-142.

"A questionnaire was sent to employers of arborists and urban foresters in the Mountain West Region to determine their perspective as to the level of training and specific skills that should be taught to students of arboriculture and urban forestry." (p.137)

2452 Meacham, C.M., 1985. **Values, tradition, and change in the U.S. Forest Service.** Women in Forestry 7(2):33-35.

The author concludes that the values of the Forest Service haven't changed much. "What has been changing in response to social pressure and technological innovation is attitudes about who can and can't do the work and what qualities are needed for success." (p.35)

2453 Methven, I. and McCormack, M., Jr., 1984. **A prospectus for challenge in forest biology.** In: Corcoran, T.J. et al., eds. Research and education challenges and opportunities in our cooperative future. Univ. of Maine, College of For. Res.

pp.19-24.

2454 Miller, H.G., 1985. **Forestry education in the 21st century, where are we going?** Scottish Foresty 39:185-190.

2455 Montana Forestry Division, 1985. **1985 Montana consultant foresters.** Montana Dept. of State Lands, Forestry Division. 43pp.
A directory.

2456 Nordin, V.J., 1984. **Activities and linkages in international forestry schools of Canada.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.535-538.
Two of the six degree-granting forestry schools in Canada have formal agreements with foreign universities. 23.4% of the graduate students at these schools are from foreign countries.

2457 Oliver, A.C., 1983. **Timber preservation education.** In: Wood Preservation Symposium, Pretoria, 1983. National Timber Research Institute. 10pp.
Describes the education and training programs in wood preservation at Buckinghamshire College of Higher Education, High Wycombe, Bucks, U.K.

2458 Peck, T.J., 1984. **International organizations in Geneva and elsewhere and their relevance to forestry and forest industries in Europe.** In: Gill, J.G.S. and Malcolm, D.C., eds. International aspects of forestry. pp. 121-140.

2459 Reed, F.L.C., 1985. **Another dimension for leadership in forestry.** University of British Columbia, Faculty of Forestry. Mimeo. 14pp.
Prepared for SAF Convention 1985: "Foresters' Future: Leaders or Followers?" The author's objective is to scan the environmental component of forestry within its related sociopolitical framework." He then illustrates the role of the forester as either a shaping force or as one who reacts to an environmental stimulus.

2460 Reed, F.L.C., 1985. **Sociopolitical trends and professional forestry.** University of British Columbia, Faculty of Forestry. Mimeo. 15pp.
Speaking notes prepared for SAF Convention, Fort Collins, July, 1985.

2461 Shottafer, J.E., Sebastian, L.P., and Schneider, M.H., 1984. **A prospectus for wood science and technology.** In: Corcoran, T.J. et al., eds. Research and education challenges and opportunities in our cooperative future. Univ. of Maine, College of For. Res. pp.7-10.

2462 Smith, C.R., 1984. **Education and careers in international forestry.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.551-555.

2463 Society of American Foresters, 1984. **Consulting foresters 1984.** Bethesda, MD, Society of American Foresters. 96pp.

2464 Stevens, M.E., 1984. **Do we need to teach tropical forestry in the tropics?** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.539-542.

The author argues that students from temperate climates who want to work in the tropics must do part of their training in the tropics.

2465 Straka, T.J., 1983. **Continuing forestry education: The independent study option.** Journal of Forestry 81:306-307.

"Independent study through correspondence instruction can be a valuable component of continuing forestry education." (p.306)

2466 Vermont Dept. of Forests, Parks and Recreation, 1985. **Vermont consulting and industrial foresters.** Vermont Agency of Environmental Conservation, Dept. of Forests, Parks and Recreation. 32pp.

A directory of consulting foresters in Vermont.

2467 Walker, H.D. and Field, D.B., 1984. **A forest management prospectus.** In: Corcoran, T.J. et al., eds. Research and education challenges and opportunities in our cooperative future. Unive of Maine, College of For. Res. pp.11-14.

RESEARCH EVALUATION AND METHODOLOGY

2468 Burdge, R.J., 1984. **Making leisure and recreation research a scholarly topic: Views of a journal editor, 1972-1982.** Leisure Sciences 6:99-126.

Discusses "the development of publication outlets for research; leisure in the hierarchy of scholarly activity; the attempt to establish boundaries on leisure research; what are the criteria for acceptable research; and who does leisure research and where are they housed." (p.99)

2469 Burley, J. and Salleh Nor, M., 1985. **Investment in research.** Commonwealth Forestry Review 64:211-212.

Summary of paper presented at the 12th Commonwealth Forestry Conference, Victoria, B.C., Sept., 1985.

2470 Davis, J.B. and Shafer, E.L., 1984. **The use of paired comparison techniques for evaluating forestry research.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.512-516.

2471 Harris, E.H.M., 1984. **Research needs in United Kingdom forestry.** Quarterly Journal of Forestry 78:31-36.

Asks the question: "How can research help the forest industry to become profitable more quickly....?"

2472 Haygreen, J., 1984. **The dilemma of academic research.** Wood and Fiber Science 16:150-154.

The author state that "the multiple objectives of academic programs in the U.S. create a stimulation and an environment for productive research efforts that could not be achieved if programs were singly oriented toward research only." (p.150)

2473 Hyde, W.F., 1984. **A proposed forestry research evaluation project.** Southeastern Center for Forest Economics Research, SCFER Working Paper no.4. 38pp.

This paper introduces a research program currently underway at Duke University.

2474 Hyde, W.F., 1984. **Some preliminary experiences in research evaluation in the United States.** Southeastern Center for Forest Economics Research, SCFER Working Paper no.5. 14pp.

2475 Malkonen, E., ed., 1984. **Metsantutkimus metsatalouden tietopohjana.** Silva Fennica 18:401-421.

In Finnish with English Summary: "The role of forestry research in providing a scientific basis for practical forestry." Reports on a series of speeches given at Forestry Sciences Day, April 26, 1984.

2476 Seldon, B.J., 1984. **Supply functions and social returns to**

research. Southeastern Center for Forest Economics Research, SCFER Working Paper no.6. 17pp.

Reviews two approaches used by economists to study the economic impact of new process research which raises the productivity of factors of production: (1) the supply function approach; and (2) the production function approach.

2477 Spruijt, A.P., 1983. **Some methodological aspects of recreation research.** In: IUFRO Pro. intermeeting 1978, Subjectgroup Forest Landscape and Tourism Management Div. VI. 7pp.

2478 Van Doren, C.S., Holland, S.M., and Crompton, J.L., 1984. **Publishing in the primary leisure journals: Insight into the structure and boundaries of our research.** Leisure Sciences 6:239-256.

TECHNOLOGY TRANSFER AND EXTENSION

2479 Baskerville, G.I. and Brown, K.L., 1985. **The different worlds of scientists and reporters.** Journal of Forestry 83:490-493.

Deals with dissemination of scientific information from scientists through the media.

2480 Cubbage, F.W., Skinner, T.M., and Risbrudt, C.D., 1985. **An economic evaluation of the Georgia Rural Forestry Assistance Program.** Georgia Agricultural Experiment Station, Research Bulletin No.322. 59pp.

"In summary, the provision of technical assistance does seem effective in improving forest management practices, does help landowners who are unfamiliar with timber volumes and values when they sell timber, and is economically efficient"

2481 Field, D.R. and Johnson, D.R., 1983. **The interactive process of applied research: A partnership between scientists and park and resource managers.** Journal of Park and Recreation Administration 1(4):18-27.

"This article explores a process for conducting applied research in a public agency that manages natural and/or cultural resources." (p.18) "The integration of research into resource management decision making more often depends upon the way in which the research in undertaken and communicated to park management than on the subject area under study." (p.25)

2482 Finlayson, W., 1985. **Getting technical information to the field manager.** Commonwealth Forestry Review 64:215.

Summary of paper presented at the 12th Commonwealth Forestry Conference, Victoria, B.C., Sept., 1985.

2483 Gadow, K. von, 1985. **Improving forestry information management.** South African Forestry Journal 132:26-28.

Paper presented at the Seminar on Information Management in Forestry held at the Faculty of Forestry, Stellenbosch, Nov. 15-16, 1984.

2484 Lewis, B.J. and Kallio, E., 1983. **Information for forest managers: A case study of adequacy and needs in Minnesota.** U.S. Forest Service, Research Note NC-303. 4pp.

"Public and private forest managers in Minnesota feel they need better information in such areas as supply and demand, timber growth projections, and reforestation. Needs varied by agency and level of management." (p.1)

2485 Mendoza, B.A., Moredo, F.C., Cuaresma, T.G., and Meimban, J.J., III, 1984. **Manpower development activities of the FPRDI for the Philippine forest-based industries and the general public.** FPRDI Journal 13(3/4):62-71.

Presents the manpower training activities conducted by the Forest Products Research and Development Institute from

1960 to 1981. FPRDI offers technical services to the forest-based industries, to governmental development specialists, industrial management consultants, professionals, students, and the general public.

2486 Okeefe, T.G. and Fosbroke, S., 1984. **The supervisory role in technology transfer: A learning program designed to help supervisors understand their role in technology transfer.** U.S. Forest Service. 54pp.

2487 Yambo, M., 1982. **Socioeconomic aspects in the development and diffusion of fuelwood technology: Some theoretical and methodological considerations.** In: Regional Workshop on Wood Energy in East Africa, Nairobi, 1982. Proc. pp.81-92.

2488 Zeichick, H.H. and Okeefe, T.G., 1983. **A new education system for woodlot owners.** Journal of Forestry 81:237-238.

"In an attempt to teach Maine owners of small woodlots about forest management, a new technique based on a system of rotating teaching units was tried in Penobscot County." (p.237)

2489 Anderson, D. and Fishwick, R., 1984. **Fuelwood consumption and deforestation in African countries.** Washington, D.C., World Bank Staff Working Papers no.704. 52pp.

This paper "reviews recent reports on the level and growth of fuelwood consumption in Africa, and on the ecological, economic and possible micro-climatic effects of deforestation." (Abstract)

2490 Biswas, M.R. and Biswas, A.K., 1985. **The shrinking forests: A threat to survival.** Development and Cooperation 1985(3):23-25.

Discusses deforestation and the need to balance socio-economic pressures with reforestation objectives.

2491 Brabander, H.D., 1984. **[Economic aspects of forest dieback.] Okonomische Aspekte des Waldsterbens.** Allgemeine Forstzeitschrift 39:487-509.

In German. The Institute for Forest Economics of the University of Goettingen is working on a research project for the evaluation of damages by the forest decline. The first results of the project are presented here in seven papers from a seminar held at the Universtiy of Gottingen on 18 Jan., 1984. (WK,WK)

2492 Chattopadhyay, S., 1985. **Deforestation in parts of Western Ghats Region (Kerala), India.** Journal of Environmental Management 20:219-230.

"This paper deals with deforestation, its causes and related environmental problems, in the southern sector of Western Ghats forming part of the State of Kerala in India." (p.219)

2493 Clausen, M., 1985. **Worst Case Analysis: A BLM manager's perspective.** In: Garrett, L.D. and Covington, W.W., eds. Proc. of a Symposium on Worst Case Analysis. pp.33-44.

2494 Cooper, A.W., 1984. **Ecological and environmental threats to forests of the future: A global appraisal.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.84-90.

2495 Davis, D.D., Millen, A.A., and Dochinger, L., editors, 1983. **Proceedings of the Symposium on Air Pollution and the Productivity of the Forest, Washington, D.C., 1983.** Published under a grant from the Izaak Walton League of America Endowment, with the cooperation of Pennsylvania State University. 344pp.

2496 Garrett, L.D. and Covington, W.W., eds., 1985. **Proceedings of a Symposium on Worst Case Analysis, May 19-21, 1985.** Sponsored by School of Forestry, Northern Arizona University, Bureau of

Land Management, and U.S. Forest Service. 179pp.

The Council on Environmental Quality (CEQ) has voted to amend the Worst Case Analysis Regulation of the National Environmental Policy Act (NEPA). Representatives from various groups interested in this propsed change met to present their views on Worst Case Analysis.

2497 Halkett, J.C., 1983. **The conservation of natural forest in New Zealand.** New Zealand Journal of Forestry 28:263-274.

"It is extremely difficult to assess the worth of non-material commodities in a manner which enables the benefit of the natural condition to be weighed against the advantages of resource development." (p.263)

2498 Harou, P.A., Patterson, W.A., III and Falconi, J., 1985. **The role of forestry in dry Africa.** Journal of Forestry 83:142-147.

"Human pressure and recent droughts have caused vegetative devastation. Forestry is important in rehabilitating the area." (p.143)

2499 Harris, E.H.M., 1984. **Replenishing the world's forests.** Quarterly Journal of Forestry 78:93-99.

"This paper reports on a conference on the state of the world's forests. Global figures do not suggest the disastrous picture commonly drawn in the press but action is needed." (p.93)

2500 Ketcham, D., 1985. **Worst Case Analysis: The Forest Service position.** In: Garrett, L.D. and Covington, W.W., eds. Proc. of a Symposium on Worst Case Analysis. pp.45-53.

2501 Lundgren, B., 1985. **Global deforestation, its causes and suggested remedies.** Agroforestry Systems 3:91-95.

"One approach to landuse which holds a great, and largely untapped potential to address some of the main problems leading to deforestation, i.e., declining soil fertility, erosion and fuelwood shortage, is agroforestry." (p.94)

2502 MacKay, D., 1985. **Heritage lost: The crisis in Canada's forests.** Toronto, Macmillan of Canada. 272pp.

2503 Mackie, C., 1985. **Shifting cultivators and deforestation: The case of Borneo's forest fires.** Women in Forestry 7(2):36-38.

2504 Netsch, W., 1985. **[Possible effects of the forest decline on farm forest enterprises] Mogliche Auswirkungen der Waldschaden auf bauerliche Forstbetriebe.** Forstwissenschaftliches Centralblatt 104:263-271.

In German: English summary. "The effects of the forest decline, caused by air pollution, on the economic situation of farm forest enterprises is studied using the Bavarian Forest region as an example. "

2505 Oxby, C., 1985. **Forest farmers: The transformation of land use and society in eastern Madagascar.** Unasylva 37(148):42-51.

"This article attempts to explain why small farmers continue to practice an extensive form of fallow farming known as tavy, a term better translated as "slash and burn" than "shifting cultivation." The practice is "one of the many factors leading to a steady diminishing of Madagascar's eastern forest reserves." (p.43)

2506 Pellek, R., 1983. **Depletion of the Mauritanian forest.** Journal of Forestry 81:320-321.

"Unless large-scale reforestation is begun soon, the entire resource is threatened with accelerated exploitation by a rapidly increasing population." (p.320)

2507 Poore, D., 1984. **Conservation--major issues.** In: Gill, J.G.S. and Malcolm, D.C., eds. International aspects of forestry. pp.107-117.

"The future of the world's forests is a conservation issue of major concern. In the temperate and boreal forests of the developed countries, the forest area is generally not at risk.... In the developing countries there are acute problems of forest decline." (p.107)

2508 Sedell, J.R. and Duval, W.S., 1985. **Influence of forest and rangeland management on anadromous fish habitat in western North America. 5. Water transportation and storage of logs.** U.S. Forest Service, Gen. Tech. Rep. PNW-186. 68pp.

Discussion of environmental effects of water transportation of logs in western North America. Includes a chapter on historical log transportation.

2509 Sedjo, R.A. and Clawson, M., 1983. **How serious is tropical deforestation?** Journal of Forestry 81:792-794.

2510 Silver, L., 1985. **The need for Worst Case Analysis in natural resource planning and management.** In: Garrett, L.D. and Covington, W.W., eds. Proc. of a Symposium on Worst Case Analysis. pp.54-61.

2511 Stark, N.M., 1985. **Deforestation in the Amazon: Yet another view of the tropical forest.** Western Wildlands 11(3):25-27.

Advocates the use of "floating gardens" to grow food for the people of the Amazon Basin.

2512 Steinlin, H., 1985. **[Forest damages in the world]. Waldschaden weltweit.** Forstarchiv 56:61-65.

In German; English summary. In the industrialized countries a new danger for forestry emerges in the form of air pollution. This is a problem which cannot be solved by forestry alone but must be attacked with political and economic tools at the source of the pollution. (WK, WK)

2513 Wong, K.M., 1984. **Tropical forests: Can we cope with the dwindling resource?** Wallaceana W35:3-7.
Deforestation of tropical forests "continues at an alarming rate."

2514 Yost, N.C., 1985. **Worst Case Analysis in natural resource management.** In: Garrett, L.D. and Covington, W.W., eds. Proc. of a Symposium on Worst Case Analysis. pp.62-70.

SOCIAL SCIENCES APPLIED TO FOREST MANAGEMENT

GENERAL

2515 Graham-Tomasi, T., 1983. **The comparative statics of the Faustmann model of forest management.** University of Minnesota, Dept. of Agricultural and Applied Economics, Staff paper P83-23. 29pp. + footnotes, refs., app.

2516 Nyyssonen, A., 1984. **Metsavarojen hoidon periaatteet.** Silva Fennica 18:324-329.

In Finnish with English summary: "Principles of forest resource management in Finland."

2517 FAO, 1985. **Intensive multiple-use management in the tropics: Analysis of case studies from India, Africa, Latin America and the Caribbean.** Rome, Food and Agriculture Organization of the United Nations. FAO Forestry Paper no.55. 180pp.

"Case studies on intensive multiple-use forest management were conducted in Kerala (India), Ghana, Honduras and Trinidad and Tobago. Each study describes the forest and the ecological, socio-economic, political and administrative factors influencing forest management in the area...."

2518 Graham-Tomasi, T., 1984. **On the optimal depletion of old-growth forests and the preservation of wilderness.** University of Minnesota, Dept. of Agricultural and Applied Economics, Staff Paper P84-7. 33pp. + app., footnotes, and refs.

The author discusses the "problem of the optimal harvest of an old-growth forest which has value for both the timber it contains and the wilderness services it provides." (p.3)

2519 Sirmon, J.M., 1984. **Regional, political and economical issues in managing old growth forest on national forest land.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.325-327.

"A continuous supply of wood fiber, easily measured in terms of economics, must be balanced against numerous intangible values." (p.325)

2520 Teeguarden, D.E., 1984. **National policy, tradeoffs, and issues in managing old-growth forests for multiple benefits.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.320-324.

A national policy regarding the retention of old growth forests is implicit in five federal statutes enacted between 1960 and 1976.

OWNERSHIP

GENERAL

2521 Milliken, R.B., 1985. **Future trends in timberland ownership.** In: American Pulpwood Association Inc. Where is the wood and who is going to own it? APA 85-P-6. pp.19-29.

2522 Burford, R.F., Peterson, R.M. and Melcher, J., 1985. **The great land swap.** American Forests 91(9):10-11, 59-61, 76-78.

Discussion of a plan to exchange the jurisdiction of some 35 million acres of federal land between the Forest Service and the Bureau of Land Management. Forest Service Chief Peterson and BLM Director Burford argue that "the land exchange is a long-overdue way to reduce inefficiency, overlap, confusion, and cost;" Melcher, Senator from Montana, sees the proposal as ill-advised.

2523 Hall, E.J., 1982. **Economic efficiency vs. local economic impact: A comparison of national forest management programs.** Ph.D. thesis, Michigan State University; Ann Arbor, MI, University Microfilms, Int. 98pp.

"The problem considered in this research is how to measure the impact of forest management policies on a local economy and how to compare that to the cost of achieving it. A case study of the Idaho Panhandle National Forests is used to illustrate the method." (abstract)

2524 Kartez, J.D., 1984. **Conflict and corporate citizenship on the western resource lands.** Renewable Resources Journal 2(2/3):23-28.

Reprinted from American Land Forum Magazine 4(3), 1983. Discusses the usefulness of industry involvement in resolution of conflicts relating to public land management.

2525 Lewis, B.J., 1983. **The Reagan administration's federal land sales program: Economic, legal and jurisdictional issues.** University of Minnesota, Dept. of Forest Resources, Staff Paper Series no.37. 139pp.

"This report describes the first 17 months of the Reagan administration's federal land sales program from the time of its introduction in February, 1982. Important historical background pertinent to the program is also provided." (preface)

2526 Pare, G., 1985. **Considerations economiques sur l'allocation des erablieres en foret publique. II--Un modele d'analyse economique pour l'allocation des forets publiques.** Quebec Service de la Recherche (Terres et Forets) Memoire no.86. 117pp.

In French; French and English summaries. English title: "Economic reflections on the leasing of maple orchards on public forests. II--An economic analysis model for the allocation of public forests."

PRIVATE OWNERSHIP

GENERAL

2527 Birch, T.W., 1983. **The forest-land owners of New York.** U.S. Forest Service, Resource Bulletin NE-78. 80pp.

A study of private commercial forestland owners in New York. "Discusses landowner characteristics, attitudes, and intentions of owners regarding reasons for owning, recreational use, timber management, and harvesting." (abstract)

2528 Reunla, A., 1984. **Metsanomistus.** Silva Fennica 18:357-364.

In Finnish with English summary: "Forest ownership." "Two thirds of the forests in Finland are privately owned... The change in the structure of private forest ownership, and the shift in the attitude of forest owners towards commercial forestry...have created new problems and challenges for forest policy...." (p.397)

2529 Richardson, S.D., 1985. **The role of the state in the regulation of yield from private forests.** Commonwealth Forestry Review 64:213-214.

Summary of paper presented at the 12th Commonwealth Forestry Conference, Victoria, B.C., Sept. 1985.

2530 Sedjo, R.A., 1982. **Sweden's forest industry and forest plantation of the tropics and Southern Hemisphere.** University of Umea, Swedish College of Forestry, Research Report 1982:3. 30pp.

"The role of the industrial forest plantation is analysed and some results of an assessment of the comparative economics of plantations in twelve different world regions is presented."

PRIVATE - NONINDUSTRIAL

2531 Birch, T.W., 1984. **The private forest land owners of the United States.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.626-630.

2532 Bommer, R.H., Jr., 1983. **Economic considerations in the management of the nonindustrial hardwood resource.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.38-41.

2533 Bond, B.C., 1985. **Can nonindustrial private lands be a base for economic development?** In: Forestry Forum, 15th, 1985. Proceedings. pp.91-96.

2534 Brock, S.M., Kingsley, N.P., DeBald, P.S., and Grafton, W.N., 1985. **A focus on West Virginia's retired forest landowners.** West Virginia Agricultural and Forestry Experiment Station, Circular 135. 36pp.

"This study was initiated to test the use of focus group interviewing to gain a deeper understanding of the interests and objectives of key segments of the nonindustrial private forest owning population." (Abstact)

2535 Brusila, B., 1982. **Forest management and marketing cooperatives: Are they a viable alternative?** In: Obyc, R.J., comp. Proceedings: Fuelwood Management and Utilization Seminar, East Lansing, 1982. pp.110-114.

Forestry cooperatives provide a method of increasing the productivity of nonindustrial private forests.

2536 Carlen, O. and Muller, A., 1985. **What determines the private forest owner's decision to cut--an econometric study based on Swedish survey data.** Sveriges Lantbruksuniversitet, Inst. for Skogsekonomi, Arbetsrapport 44. 26pp.

2537 Conrad, J., 1985. **Hunting for forest income.** American Forests 91(9):45-46, 73-75.

Discussion of the leasing of hunting rights on private forest land.

2538 Dutrow, G.F., 1984. **Private owners of forest land: Management options and investments.** In: Proc. of the Symposium on Utilization of the Changing Wood Resource in the Southern United States, Raleigh, 1984. North Carolina State Univ., School of Forest Resources. pp.270-276.

Forest management and investments on nonindustrial private forest land will largely determine the nature and extent of future timber supplies in the South. (p.270)

2539 Gardiner, J.J., 1985. **Private forestry in Sweden.** Irish

Forestry 42(1):44-48.

2540 Gedney, D.R., 1983. **Diverse owners of nonindustrial private timberland in western Oregon.** Journal of Forestry 81:727-729.

The class of nonindustrial private forest owners includes farmers, individuals other than farmers, and corporations. Each of these groups has different objectives. "The mix of objectives makes it very difficult to project timber supply from this owner class." (p.727)

2541 Gill, J.D. and Worley, D.P., 1983. **Managing nonindustrial private forestlands: A differenct approach.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.238-242.

2542 Gramann, J.H., Marty, T., and Kurtz, W.B., 1985. **A logistic analysis of the effects of beliefs and past experience on management plans for non-industrial private forests.** Journal of Environmental Management 20:347-356.

2543 Harou, P.A., Mack, R.J., and Mawson, J.C., 1985. **A silvicultural-financial simulator for nonindustrial forest land in the Northeast.** Forest Science 31:706-716.

"A simulator has been developed to provide localized physical and financial information to support forest management decisions on NIPF...lands in the Northeast."

2544 Helles, F., 1981. **Methods of identifying and assessing problems associated with small private forests.** In: Nishizawa, M., ed. Proceedings of Forest Resource Inventory, Growth Models, Management Planning, and Remote Sensing. pp.32-41.

2545 Jarvelainen, V.-P., 1983. **Hakkuumahdollisuuksien hyvaksikaytto yksityismetsaloilla. Ita-Savon, Pohjois-Karjalam ja Pohjois-Savon purimetsalautakuntien aluetta koskevia ennakkotuloksia.** Metsantutkimuslaitoksen Tiedonantoja no.82. 59pp.

In Finnish with English summary: "The use of potential cut from private woodlots. Preliminary results concerning three forestry board districts in eastern Finland."

2546 Kurtz, W.B., Marty, T.D., and Trokey, C.B., 1984. **Motivating the nonindustrial private forest landowner.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.635-637.

Discusses the factors influencing NIPF owners to adopt management strategies leading to timber harvest.

2547 Lortie, M., 1983. **Private nonindustrial forest ownership and public programs in eastern Canada.** Journal of Forestry 81:382-384, 405.

2548 Lyons, J.R., 1983. **The real problem with nonindustrial private forests.** Journal of Forestry 81:518.

The author argues that the problem with NIPFs is not simply one of timber supply shortages, reduction in wildlife habitat, or declines in water quality, but rather the problem is one of "resource neglect, of poor forest management."

2549 Royer, J.P. and Kaiser, H.F., 1983. **Reforestation decisions on harvested southern timberlands.** Journal of Forestry 81:657-659.

"Personal interview with 759 nonindustrial private owners who had harvested timber in the South between 1971 and 1981 revealed that less than half of the land harvested was held by owners who took actions to assure adequate restocking with pine." (p.657)

2550 Royer, J.P., 1985. **The effects of markets and public policies on the reforestation behavior of southern landowners.** Research Triangle Park, NC, Southeastern Center for Forest Economics Research, SCFER Working Paper no.12. 25pp. + lit. cit. and tables.

"Public programs of financial and technical assistance are shown to explain the highest proportion of variation in reforestation behavior; markets, ownership, and owner characteristics explain modest proportions in comparison."

2551 Skinner, T.M. and Cubbage, F.W., 1985. **A survey of industrial forest management assistance and leasing programs for nonindustrial private forests in Georgia.** Georgia Agricultural Experiment Stations. Research Report No.470. 30pp.

"...Study of forest industry management-assistance programs and leases and their impact on NIPFs in 1983 for the state of Georgia." (p.1)

2552 Young, R.A., Reichenbach, M.R., and Perkuhn, F.H., 1985. **PNIF management: A social-psychological study of owners in Illinois.** Northern Journal of Applied Forestry 2:91-94.

Results of a survey were "studied to identify barriers and incentives which affect timber production and to determine policies and programs which might increase production." (p.91)

2553 Becker, G. and Boeltz, K., 1985. **View of the working conditions in mechanized wood-harvesting systems.** Der Forst- und Holzwirt 40:309-310, 312-314.

In German. The result of an inquiry shows, that the work as machine driver as well as timber yard worker compared to the conventional forest work represents a specialized business that demands a lot of professional knowledge, efficiency and motivation. (WK, WK)

2554 Heikinheimo, L., 1984. **Metsatyovoima.** Silva Fennica 18;365-375.

In Finnish with English summary: "The forest work force." Presents a review of developments in the structure and size of the forestry work force from the 1950's to the beginning of the 1980's.

2555 Lacko, M., 1984. **Analyza pracovnych sil v pestovnych pracach.** Lesnicky Casopis 30:377-383.

In Czech; English summary: Analysis of the labour force in silvicultural operations.

2556 Agee, J.K., 1985. **Cost-effective fire management in national parks.** In: Lotan, J.E. et al., tech coord. Proc.-Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:193-198.

2557 Aldrich, D.F., 1984. **Economics of slash disposal by fire.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.181-183.

2558 Anderson, B.A., 1985. **Archeological considerations for park and wilderness fire management planning.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:145-148.
"There is potential for conflicts between the goals of fire management programs and cultural preservation programs because fire may damage the resources and suppresssion may do even greater damage." (p.145)

2559 Baker, F.A. and French, D.W., 1985. **Economic effectiveness of operational therapeutic pruning for control of Dutch elm disease.** Journal of Arboriculture 11:247-249.

2560 Baughman, M.J., 1985. **Economics of Dutch elm disease control: A model and case study.** Journal of Forestry 83:554-557.
"A discounted cash-flow model is used to compare the economic efficiency of sanitation controls for Dutch elm disease. A case study in Minneapolis, Minnesota, considers intensive sanitation, winter sanitation, and minimum control." (p.554)

2561 Belcher, F.A., 1985. **Fire management policy and programs for national wildlife refuges.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:28-29.

2562 Bellinger, M.D., Kaiser, H.F., and Harrison, H.A., 1983. **Economic efficiency of fire management on nonfederal forest and range lands.** Journal of Forestry 81:373-375, 378.

2563 Birch, J.E., 1985. **Fire management opportunities and concerns under BLM wilderness program policy.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:25-27.

2564 Blattenberger, G., Hyde, W.F., and Mills, T.J., 1984. **Risk in fire management decisionmaking: Techniques and criteria.** U.S. Forest Service, Gen. Tech. Report PSW-80. 9pp.
"This report examines theory as it is applied to fire management, describes a simulation model that includes the factor of risk, and compares fire management with other

natural hazards to identify unique characteristics." (p.1)

2565 Bolle, A.W., 1985. **A user-oriented view of Forest Service wilderness fire policy and programs.** In: Lotan, J.E. et al., tech. coord. Proc.-Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:51-52.

Bolle is Vice Pres. and Chairman, Policy Committee, The Wilderness Society.

2566 Butts, D.B., 1985. **Fire policies and programs of the national park system.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:43-48.

2567 Condon, M.K., 1985. **Economic analysis for wilderness fire management: A case study.** In: Lotan, J.E. et al., tech. coord. Proc.-Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:199-205.

2568 Davis, J.R. and Nanninga, P.M., 1985. **GEOMYCIN: Towards a geographic expert system for resource management.** Journal of Environmental Management 20:377-390.

"This paper described the first stage of the adaptation of...expert system, EMYCIN, to spatial problem solving through the incorporation of geographic data files. The adapted system, GEOMYCIN, has been applied to fire behaviour prediction in Kakadu National Park, Australia...." (p.377)

2569 Dickenson, R.E., 1985. **Sociopolitical environment for fire and wilderness management in national parks.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:4-8.

2570 Dooling, O.J., 1983. **Dwarf mistletoe management in the Northern Region: Is it cost-effective?** U.S. Forest Service, Northern Region, Cooperative Forestry & Pest Management Report no.83-21. 24pp.

2571 Dorrance, R., 1985. **Prescribed fire as a management tool.** Forest Farmer 44(5):29.

2572 Dyer, A.A., Teeter, L.D., and Sullivan, B.J., 1983. **The role of private individuals and firms, states and federal government in protection of state and private lands from hazards of wildfire.** Colorado Agricultural Experiment Station. Special Series no.26. 32pp.

"...Examines "why is the federal government involved in fire protection efforts on state and private lands and is there a convincing rationale behind this involvement?" (p.2)

2573 Fischer, W.C., 1985. **Elements of wilderness fire management planning.** In: Lotan, J.E. et al., Tech. coord.

Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:138-144.

2574 Gansner, D.A. and Herrick, O.W., 1984. **Guides for estimating forest stand losses to gypsy moth.** Northern Journal of Applied Forestry 1:21-23.

"Easy-to-measure data for forest characteristics such as species composition and crown condition can be collected and applied in models that estimate potential stand and tree mortality and changes in timber value." (p.21)

2575 Gardner, P.D., Cortner, H.J., and Widaman, K.F., 1985. **Forest-user attitudes toward alternative fire management policies.** Environmental Management 9:303-312.

"A national survey of organized groups of forest users indicates that, contrary to the concern of many forest managers, considerable support exists for flexible fire suppression policies... However, intergroup differences do exist." (p.303)

2576 Getty, M.H., 1985. **Fire management policy and programs for California's State Park System.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:32-35.

2577 Gonzalez-Caban, A., McKetta, C.W., and Mills, T.J., 1984. **Costs of fire suppression forces based on cost-aggregation approach.** U.S. Forest Service, Research Paper PSW-171. 16pp.

2578 Graber, D.M., 1985. **Coevolution of National Park Service fire policy and the role of national parks.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:345-349.

2579 Housley, R.M., 1985. **Managing wilderness today for the future.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:9-12.

Fire management policies and the use of prescribed fire in wilderness.

2580 Ingles, A., 1982. **Fire management in natural areas: Formulating a policy.** In: Tyson, B. and Davis, G., eds. Papers presented at the Natural Area Management Workshop, Tasmania, 1982. 6pp.

2581 Irland, L.C. and Runyon, K.L., 1984. **Economics of spruce budworm management strategy.** In: Spruce budworms handbook: Managing the spruce budworm in eastern North America. U.S. Department of Agriculture, Agriculture Handbook no.620, pp.65-82.

2582 Kovalicky, T., 1985. **The wilderness fire management plan.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:136-137.

2583 Kroth, W., 1985. **The state of forest dieback and consequences to be expected for the sawmilling industry.** Holz-Zentralblatt 28:413-415.

In German. A general discussion, with special reference to predicted salvage-logged volumes (from various sources of damage) in Bavaria in 1983 and 1984, and the possible effects of log surpluses on the timber market. (WK, WK)

2584 Leuschner, W.A. and Berck, P., 1985. **Decision analysis.** In: Waters, W.E. et al., eds. Integrated pest management in pine-bark beetle ecosystems. pp.177-189.

2585 Leuschner, W.A. and Berck, P., 1985. **Impacts on forest uses and values.** In: Waters, W.E. et al., eds. Integrated pest management in pine-bark beetle ecosystems. pp.105-120.

Discusses impacts of the pine-bark beetles on timber, recreation, aesthetic values, hydrology, wildlife and grazing. Then discusses cost impacts.

2586 Lopoukhine, N., 1985. **Guiding philosophy in fire and vegetation management in Canadian parks.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:16-20.

2587 Lotan, J.E., Kilgore, B.M., Fischer, W.C., and Mutch, R.W., tech. coord., 1985. **Proceedings--Symposium and Workshop on Wilderness Fire, Missoula, Montana, Nov.15-18, 1983.** U.S. Forest Service, Gen. Tech. Rep. INT-182. 434pp.

"Provides information on fire management policy, programs, and issues in parks, wildernesses, and other natural areas." Selected papers from the Symposium are indexed in this section.

2588 Mangan, R.J., 1985. **Fire suppression for wilderness and parks: Planning considerations.** In: Lotan, J.E. et al., tech. coord. Proc.-Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:159-161.

2589 McDowell, H., 1985. **Fire management policies and programs: An industry view.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:53-54.

The author states that the profitability of the forest industries (with the exception of the recreation industry) "is not measurably affected by wilderness fire management." (p.53)

2590 McKetta, C.W. and Gonzalez-Caban, A., 1985. **Economic costs of fire-suppression forces.** Journal of Forestry 83:429-432.

"Differences in FMI (fire management inputs) costs and the absence of economies of scale indicate variation in management strategies. Accurate cost estimation is necessary to express operational philosophies in economic terms and to test formally the efficiency of existing strategies in meeting fire management goals." (p.432)

2591 Mills, T.J., 1985. **Criteria for evaluating the economic efficiency of fire management programs in park and wilderness areas.** In: Lotan, J.E. et al., tech. coord. Proc.-Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:182-190.

2592 Parsons, D., Bancroft, L., Nichols, T., and Stohlgren, T., 1985. **Information needs for natural fire management planning.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:356-359.

"The purpose of this paper is to review the important steps in developing and implementing a natural fire management program with special emphasis on examples from Sequoia and Kings Canyon National Parks." (p.356)

2593 Phillips, C.B., 1985. **The relevance of past Indian fires to current fire management programs.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:87-92.

"Knowledge of past Indian fires can help fire managers plan programs of fire management for wilderness areas." (p.87)

2594 Presley, J.J., 1983. **Social-political-legal considerations in the use of fire.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.173-175.

2595 Pyne, S.J., 1985. **Vestal fires and virgin lands: A historical perspective on fire and wilderness.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:254-262.

"We cannot simply manage fire to suit our notions of wilderness; we must also mold our concept of wilderness to suit the reality of fire." (p.261)

2596 Rose, D.W., 1983. **Benefit-cost evaluation of the Douglas-fir tussock moth research and development program.** Journal of Forestry 81:228-231.

2597 Schmid-Haas, P., 1985. **[The state of health of the Swiss forests in 1984.] Der Gesundheitszustand der Schweizer Waldes 1984.** Schweizerische Zeitschrift fur Forstwesen 136:251-273.

In German. French summary. In 1984 an inventory of the damages took place in the public forests of Switzerland. It shows that, apart from the younger stands, one third of the forests has suffered damages. Without considering the immissions this phenonmenon is nearly inexplicable, but they alone cannot supply an interpretation for all observations. (WK,WK)

2598 Slocum, R., 1985. **Forest protection: Who does it? Who pays for it?** American Tree Farmer 4(4):12-13.

2599 Stark, R.W. and Waters, W.E., 1985. **Concept and structure of a forest pest management system.** In: Waters, W.E. et al., eds. Integrated pest management in pine-bark beetle ecosystems. pp.49-60.

2600 Tandy, C.W., 1985. **Fire managment policy and programs for BIA-administered wilderness.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:30-31.

"The Bureau of Indian Affairs does not have a national policy concerning fire management in wilderness areas. Fire management policy for wilderness areas is reservation or agency specific." (p.31)

2601 Taylor, J.G. and Daniel, T.C., 1985. **Perceived scenic and recreational quality of forest burn areas.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:398-406.

Because of the change in U.S. Forest Service fire policy, in 1977, from one of control to management, foresters are becoming increasingly concerned with public acceptance of prescribed burning and public perceptions of burn areas.

2602 Towle, E.L., 1985. **Fire management policy and programs for national forest wilderness.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:49-50.

2603 Towle, E.L., 1985. **Management considerations for a cost-effective fire management program in national forest wilderness.** In: Lotan, J.E. et al., tech. coord. Proc.-Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:191-192.

2604 Van Wagner, C.E., 1984. **Forest fire research in the Canadian Forestry Service.** Petawawa National Forestry Institute, Information Report PI-X-48. 45pp.

2605 Waters, W.E., Stark, R.W., and Wood, D.L., eds., 1985. **Integrated pest management in pine-bark beetle ecosystems.** New York, Wiley. 256pp.

2606 Wiitala, M.R., 1984. **Rethinking values at risk.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.161-164.

Valuation of wildfire protection outputs.

2607 Worf, W.A., 1985. **Wilderness management: A historical perspective on the implications of human-ignited fire.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:276-282.

"The author concludes that using prescribed fire with scheduled ignitions as a tool to manage the wilderness resource is inappropriate. However, he believes scheduled ignitions can be used with caution to control fires as in national parks or wildlife refuges to meet special park or refuge objectives." (p.276)

2608 Zimmermann, W., 1985. **Forest dieback in Switzerland: The efforts of state institutions.** Forstarchiv 56:112-117.

In German; English and French summaries. The investigation shows that state institutions have followed the three phases mentioned below in their decision-making process concerning forest dieback problems: (1.) discussion and information; (2.) assistance through financial contributions from public funds; (3.) behavioural control through orders and prohibitions. (WK, WK)

PRODUCTION OF FOREST GOODS AND SERVICES

OUTDOOR RECREATION

2609 Alcock, J.E., 1984. **Increasing amenity and recreation values of forests--opportunities and costs.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.97-101.

The author suggests that more attention needs to be given to providing recreation and amenity values on private young forests. "The key...is to plan for these values before the pressure of meeting production targets or the need for cash is iminent." (p.100)

2610 Alderwegen, H.A. van and Locht, L.J., 1983. **Two methods for appraisal of the recreational benefits of woodlands.** In: IUFRO Proc. intermeeting 1978, Subjectgroup Forest Landscape and Tourism Management Div. VI. 22pp.

2611 Allen, S., 1985. **Predicting the impacts of a high-voltage transmission line on big game hunting opportunities in western Montana.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.86-100.

Reports on a five-year study on the impacts of a 500-kV transmission line on elk habitat and hunter opportunity.

2612 Anderson, C.L., 1985. **A preliminary assessment of northeastern Minnesota's tourism needs and potential.** University of Minnesota-Duluth, School of Business and Economics, Bureau of Business and Economic Research. Working Paper no.85-3. 32pp.

2613 Anderson, D.H. and Brown, P.J., 1984. **The displacement process in recreation.** Journal of Leisure Research 16;61-73.

"This paper presents the recreation displacement process from a social-psychological perspective and models it within the attitude-behavior framework. The displacement process is illustrated with empirical results from a study of use within the Boundary Waters Canoe Area Wilderness." (p.61)

2614 Anderson, D.H., 1984. **Displacement: One consequence of not meeting people's needs.** In: Research in forest productivity, use, and pest control: Proc. of a symposium. U.S. Forest Service, Gen. Tech. Rep. NE-90. pp.31-37.

"The purpose of this paper is to help nonrecreation natural resource professionals understand what happens when some people fail to have their recreation needs met." The paper focuses on "visitor displacement, one consequence of failing to meet recreation users' needs." (p.31)

2615 Aramberri, J.R., 1984. **Tourism and its socio-cultural change: A contextual approach.** In: Doorn, J.W.M. van, ed. Tourism, in its socio-cultural context, as a factor of change. pp.8-9.

2616 Australian Travel Research Conference, 6th, 1983. **Proceedings.**

Australian Travel Research Conference. 180pp.
On cover: "Tourism research can improve financial viability."

2617 Beaulieu, J.T. and Schreyer, R., 1985. **Choices of wilderness environments--differences between real and hypothetical choice situations.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.38-45.

2618 Bjorklund, N.E. and Evans, B., 1984. **Forest recreation on managed timberlands.** American Forests 90(9):10-11, 52-54, 60-61.
Offers two perspectives on recreational use of private forestland.

2619 Blank, U. et al., 1983. **Contributing to tourism industry vitality of a natural resource based region through educational/technical assistance.** University of Minnesota, Dept. of Agricultural and Applied Economics, Staff Paper P83-20. 88pp.
"This report gives a comprehensive overview of a three-year extension education program designed to provide educational/technical assistance to the tourism industry serving the Boundary Waters Canoe Area (BWCA) in northeastern Minnesota." (p.1) co-authors are: L. Simonson, G. Ballman, J. Burke, R.Korte, and A Heikkila.

2620 Boerwinkel, H.W.J., 1983. **Psychological experience, use and evaluation of forests by visitors.** In: IUFRO Proc. intermeeting 1978, Subjectgroup Forest Landscape and Tourism Management Div. VI. 15pp. + refs.

2621 Boteler, F.E., 1984. **Carrying capacity as a framework for managing whitewater use.** Journal of Park and Recreation Administration 2(2):26-36.
"Initial efforts to determine a carrying capacity for whitewater resources in West Virginia are reviewed." (p.26)

2622 Brown, P.J. and Stankey, G.H., 1983. **Forest recreation research organizations in the United States.** In: IUFRO Proc. intermeeting 1978, Subjectgroup Forest Landscape and Tourism Management Div. VI. 3pp.

2623 Brown, T.L., 1982. **The competitive position of tourism in the Northeast, 1972-1977.** Northeastern Agricultural Economics Council, Journal 11(1):21-24.

2624 Brown, W.G., 1984. **Measuring the economic value of outdoor recreation and other environmental amenities: Discussion.** Northeastern Journal of Agricultural and Resource Economics 13:199-202.
Discussion of papers presented by Hueth and Strong and by McConnell and Bockstael.

2625 Burrus-Bammel, L.L. and Bammel, G., 1983. **Hardwood forest recreation.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.42-46.

2626 Burton, R. and Muir, K., 1983. **Public preferences for forest landscapes.** In: IUFRO Proc. intermeeting 1978, Subjectgroup Forest Landscape and Tourism Management Div. VI. 11pp.

2627 Byrne, N., 1982. **Commercial outdoor recreation.** In: Tyson, B. and Davis, G., eds. Papers presented at the Natural Area Management Workshop, Tasmania. 1982. 5pp.

"Commercial outdoor recreation...poses one of the major challenges for natural area management in Australia." Problems of control of use and allocation between commercial and noncommercial interests are evident.

2628 Capelle, A.D., 1985. **New trends in interpretive planning.** Parks 10(2):8-11.

2629 Carroll, M.R., 1983. **Economics of the land base in recreation.** In: IUFRO Proc. intermeeting 1978, Subjectgroup Forest Landscape and Tourism Management Div. VI. 8pp.

2630 Christensen, H.H. and Davis, N.J., 1985. **Evaluating user impacts and management controls: Implications for recreation choice behavior.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.71-78.

2631 Christensen, J.B., Humphreys, S.K., and Price, C., 1985. **A revised Clawson method: One part solution to multidimensional disaggregation problems in recreation evaluation.** Journal of Environmental Management 20:333-346.

The authors contend that "the Clawson method of recreation evaluation...encounters major problems when visits to a recreation site are made by various transport modes or as part of a multi-visit holiday." (p.333)

2632 Clark, R.N. and Downing, K.B., 1985. **Why here and not there: The conditional nature of recreation choice.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.61-70.

"This paper reports results of several studies to identify the state of the art and direction of research on how recreationists make choices." (p.61)

2633 Cordell, H.K. and Hartmann, L.A., 1983. **Renewable resources recreation in the United States: Supply, demand, and critical policy issues.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.281-285.

2634 Cox, R.H. and Askham, L.R., 1984. **Implications of interforest management organizations.** Journal of Park and Recreation Administration 2(2):46-53.
"Increased public pressure for recreation sites has resulted in the creation of large areas specifically designated for recreation purposes." "On occasion, areas are large enough that several organizations divide management responsibilities." An example is the Selway Wild and Scenic River Corridor managed between the Bitterroot and Nezperce National Forests. (p.46)

2635 Daniels, S.E., 1985. **Methods of recreation demand analysis.** Southeastern Center for Forest Economics Research, SCFER Working Paper no.7. 37pp.
"This paper is an introduction to the techniques commonly used to analyze recreation demand and to the problems inherent in these techniques. The three techniques that have evolved into the standard methodologies in the field are the travel cost method, hedonic valuation, and contigent valuation." (p.1)

2636 Darragh, A.J., Peterson, G.L., and Dwyer, J.F., 1983. **Travel cost models at the urban scale.** Journal of Leisure Research 15:89-94.
"Travel cost models are estimated for three urban forest recreation sites in Chicago." (p.89)

2637 Dawson, K.J., 1985. **Natural area planning for recreational use transition.** Landscape Planning 12:111-123.
"This paper will discuss general strategies for, and problems arising from, recreational use transition in newly established natural areas." (p.111)

2638 Donnelly, D.M., Loomis, J.B., Sorg, C.F., and Nelson, L.J., 1985. **Net economic value of recreational steelhead fishing in Idaho.** U.S. Forest Service, Resource Bulletin RM-9. 23pp.
"Willingness to pay in addition to actual expenditure for steelhead fishing in Idaho was estimated at $27.87 per trip with the Travel Cost Method and $31.45 per trip with the Contingent Value Method."

2639 Doorn, J.W.M. van, ed., 1984. **Vienna Centre occasional paper on the tour project: Tourism, in its socio-cultural context, as a factor of change.** Vienna, European Coordination Centre for Research and Documentation in Social Sciences. 47pp.
Presents an overview of the theoretical, empirical and methodological backgrounds of a project to study the impact of tourism on the social environment.

2640 Downing, K.B. and Clark, R.N., 1985. **Methodology for studying recreation choice behavior with emphasis on grounded inquiry.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.101-106.

"This paper reports methodology for investigating recreation choice behavior using grounded, naturalistic research methods." (p.101)

2641 European Coordination Centre for Res. and Doc. in Soc. Sciences, 1984. **Tourism, in its socio-cultural context, as a factor of change: Cross-national comparative study draft research design.** Vienna, European Coordination Centre for Research and Documentation in Social Sciences. 18pp.

"Working Document 1" written by a Steering Committee which met in Warsaw, Jan., 1984.

2642 Gramann, J.H. and Burdge, R.J., 1984. **Crowding perception determinants at intensively developed outdoor recreation sites.** Leisure Sciences 6:167-186.

2643 Hagerty, J.K., Stevens, T.H., Allen, P.G., and More, T., 1982. **Benefits from urban open space and recreational parks: A case study.** Northeastern Agricultural Economics Council, Journal 11(1):13-20.

"The hedonic pricing technique was used to measure that component of house price attributable to proximity to a city park.... The policy question of park system development or contraction was addressed by comparing these benefits with operating costs to gain a net measure of parkland value." (p.13)

2644 Hamilton-Smith, E. and Watson, J., 1982. **Monitoring of wildland recreation: Issues, methods and potential.** In: Tyson, B. and Davis, G., eds. Papers presented at the Natural Area Management Workshop, Tasmania, 1982. 10pp.

"Information about users is vital to effective management of wildland recreation areas... The authors favour adequately explained and serviced register systems on a voluntary basis, and suggest the use of time-frame sampling to expand the range of data collected."

2645 Hammitt, W.E., McDonald, C.D., and Noe, F.P., 1984. **Use level and encounters: Important variables of perceived crowding among nonspecialized recreationists.** Journal of Leisure Research 16:1-8.

2646 Hanemann, W.M., 1984. **Entropy as a measure of consensus in the evaluation of recreation site quality.** Journal of Environmental Management 18:241-251.

"The perception of environmental quality should...be of interest to economists concerned with predicting the demand for recreation and wilderness sites."

2647 Harris, C.H., Driver, B.L., and Bergersen, E.P., 1985. **Do choices of sport fisheries reflect angler preferences for site attributes?** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.46-54.

2648 Heytze, J.C., 1983. **Forests for outdoor recreation in the Netherlands.** In: IUFRO Proc. intermeeting 1978, Subjectgroup Forest Landscape and Tourism Management Div. VI. 12pp.

2649 Hof, J.G. and Kaiser, H.F., 1983. **Long-term outdoor recreation participation projection for public land management agencies.** Journal of Leisure Research 15:1-14.

2650 Hueth, D. and Strong, E.J., 1984. **A critical review of the travel cost, hedonic travel cost, and household production models for measurement of quality changes in recreational experiences.** Northeastern Journal of Agricultural and Resource Economics 13:187-198.

Describes the theoretical foundations for three recreation valuation techniques: Travel cost (TC), hedonic travel cost (HTC), and household production (HP).

2651 International Union of Forestry Research Organizations, 1983. **Proceedings intermeeting 1978, Subjectgroup Forest Landscape and Tourism Management Div. VI.** Utrecht, State Forest Service in the Netherlands. 2d ed. Various pagings.

Participants from the U.S., U.K., Denmark, Sweden, Germany, Cyprus, and the Netherlands met to discuss the research aspects of forest landscaping and outdoor recreation in forests.

2652 Jacobi, C.D. and Wellman, J.D., 1983. **Recreation management in cooperation with nonprofit organizations: Pros and cons.** Journal of Forestry 81:589-592.

Key personnel in five such partnerships in the East were interviewed. "On balance, interviewees felt that the possible benefits of partnerships outweigh the potential problems." (p.589)

2653 Jafari, J., 1984. **Understanding the structure of tourism: A tripartite cross-cultural approach.** In: Doorn, J.W.M. van, ed. Tourism, in its socio-cultural context, as a factor of change. pp.10-11.

2654 Jubenville, A., 1983. **Representative rivers: An experimental research program in river recreation management.** Alaska Agricultural Experiment Station, Bulletin no.53. 28pp.

2655 Kelly, J.R., 1985. **Recreation Business.** New York, Wiley. 469pp.

Chapter 10, pp.307-339, is entitled "Outdoor Recreation Complements."

2656 Kopp, H., 1983. **Some data on forestry, forest recreation and conservation in the Federal Republic of Germany.** In: IUFRO Proc. intermeeting 1978, Subjectgroup Forest Landscape and

Tourism Management Div. VI. 3pp.

2657 Machlis, G.E. and Wenderoth, E.L., 1984. **Cultural variation in the use of leisure time: Foreign tourists at the Grand Canyon.** Leisure Sciences 6:187-204.

2658 Maki, W.R., 1984. **Regional economic accounts for recreation resource planning.** University of Minnesota, Dept. of Agricultural and Applied Economics, Staff Paper P84-25. 23pp.

The study objectives are: (1) "to develop a methodology and related data for measuring the local and regional economic effects of particular tourism/recreation activities and (2) to demonstrate the use of the methodology and data in targeting public investment in particular tourism/recreation facilities and activity areas." (p.2)

2659 Manfredo, M.J., Driver, B.L., and Brown, P.J., 1983. **A test of concepts inherent in experience based setting management for outdoor recreation areas.** Journal of Leisure Research 15:263-283.

2660 Manning, R.E. et al., 1984. **Differential fees: Raising revenue, distributing demand.** Journal of Park and Recreation Administration 2(1):20-38.

Co-authors are: E.A. Callinan, H.E. Echelberger, E.J. Koenemann, and D.N. McEwen. Study of "the way users respond to fee initiatives and the extent to which user fees might be employed as a management tool." The specific objectives of the study were "to determine the ability of differential fees to redistribute demand and raise revenue." (p.20)

2661 Marion, J., Cole, D., and Reynolds, D., 1985. **Limits of acceptable change: A framework for assessing carrying capacity.** Park Science 6(1):9-11.

2662 Martinson, K.S. and Field, D.R., 1985. **People, human behavior and water-based recreation: A working bibliography.** Corvallis, Oregon State University, College of Forestry, National Park Service Cooperative Park Studies Unit. CPSU-OSU 85-5. 46pp.

2663 McAvoy, L.H. and Dustin, D.L., 1983. **Indirect versus direct regulation of recreation behavior.** Journal of Park and Recreation Administration 1(4):12-17.

"The problem of overuse, user conflicts, and depreciative behavior have forced recreation land managers to become more involved in visitor management." (p.12)

2664 McConnell, K.E. and Bockstael, N.E., 1984. **Aggregation in recreation economics: Issues of estimation and benefit measurement.** Northeastern Journal of Agricultural and Resource Economics 13:181-186.

"This paper has exploded some issues in using induvidual and aggregate observations for estimating the demand for outdoor recreation." (p.186)

2665 McCool, S.F., Stankey, G.H. and Clark, R.N., 1985. **Choosing recreation settings: Processes, findings, and research directions.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.1-8.

2666 Mikola, P., 1984. **Metsien suojelu ja virkisty-skaytto.** Silva Fennica 18:376-382.

In Finnish with English summary: "Forest protection and recreational use."

2667 Mittleider, J.F. and Leitch, J.A., 1984. **Economic contribution of state parks to the North Dakota economy.** North Dakota Agr. Expt. Sta., Agricultural Economics Report no.194.

"The purpose of this study was to estimate the contribution of state parks to the North Dakota economy in the form of increased levels of business activity, employment, personal income, and tax collections." (preface)

2668 Mundy, A.N., chairman, 1984. **Planning for leisure in the countryside.** Journal of Planning and Environmental Law Occasional Papers. London, Sweet & Maxwell. 107pp.

Papers from a conference held at Oxford, Sept. 1982, organized by the Bar Council, the Law Society, and the Royal Institution of Chartered Surveyors.

2669 New York State Office of Parks, Recreation and Historic Preservation, 1983. **People, resources, recreation 1983: New York Statewide Comprehensive Recreation Plan.** N.Y. State Office of Parks, Rec. and Hist. Pres. and N.Y. State Council of Parks, Rec. and Hist. Pres. Various paging.

2670 O'Toole, R., 1985. **How much is recreation worth?** Forest Planning 6(5):17-20.

Estimating tree values for recreation in the planning process.

2671 Peterson, G.L., 1985. **Economic growth from forest-based recreation, wildlife and tourism.** In: Forestry Forum, 15th, 1985. Proceedings. pp.55-73.

"This paper explores the role of efficiency and pricing policy in economic growth from forest-based recreation, wildlife, and tourism." The paper also "summarizes several studies that have measured willingness to pay for forest-based recreation." (p.55)

2672 Peterson, G.L., Stynes, D.J., Rosenthal, D.H., and Dwyer, J.F., 1985. **Substitution in recreation choice behavior.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.19-30.

2673 Peterson, G.L., Stynes, D.J., and Arnold, J.R., 1985. **The stability of a recreation demand model over time.** Journal of Leisure Research 17:121-132.

"Temporal stability of a simple recreation demand model specified in terms of distance and population is tested using a census of paddle canoe-camping trips to the Boundary Waters Canoe Area Wilderness for 1974-77, 1980, and 1981." (p.121)

2674 Powell, L.G., 1984. **The handicapped user in outdoor recreation resource environments: Implications for resource planning.** In: Research in forest productivity, use and pest control: Proc. of a symposium. U.S. Forest Service, Gen. Tech. Rep. NE-90. pp.39-43.

2675 Przeclawski, K., 1984. **Tourism as a factor of the socio-cultural change of the environment.** In: Doorn, J.W.M. van, ed. Tourism, in its socio-cultural context, as a factor of change. pp.12-13.

2676 Reiling, S.D. and Anderson, M.W., 1985. **Equity and efficiency in public provision of forest-based recreation opportunities.** Journal of Environmental Management 20:149-161.

"Cost of provision studies generally have shown that user fees at forest recreation facilities fail to cover the costs of providing services." The authors conclude that such under-pricing leads to economic efficiency but also may represent an inequitable redistribution of society's resources." (p.149)

2677 Rogelj, S., 1984. **Tourism and environment in a European context.** In: Doorn, J.W.M. van, ed. Tourism, in its socio-cultural context, as a factor of change. pp.14-15.

2678 Schreyer, R. and Lime, D.W., 1984. **A novice isn't necessarily a novice--the influence of experience use history on subjective perceptions of recreation participation.** Leisure Sciences 6:131-149.

A person may be a novice in a given environment, yet have experience elsewhere. The authors conclude that recreation resource planners and managers should consider experience external to the environment being studied if they want an accurate assessment of the perceptions of their clientele.

2679 Schreyer, R. and Knopf, R.C., 1984. **The dynamics of change in outdoor recreation environments--some equity issues.** Journal of Park and Recreation Administration 2(1):9-19.

"Principles of recreation behavior are used to characterize two of the most important change processes: displacement and social succession." (p.9)

2680 Schreyer, R., Lime, D.W., and Williams, D.R., 1984.

Characterizing the influence of past experience on recreation behavior. Journal of Leisure Research 16:34-50.

2681 Schreyer, R., Knopf, R.C. and Williams, D.R., 1985. **Reconceptualizing the motive/environment link in recreation choice behavior.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.9-18.

2682 Schroeder, H.W. and Brown, T.C., 1983. **Alternative functional forms for an inventory-based landscape perception model.** Journal of Leisure Research 15:156-163.

"Models were developed for predicting scenic beauty of forest landscapes using field inventories of forest features." (p.156)

2683 Shabman, L. and Ostrander, R., 1982. **A financial assessment of Virginia's outdoor recreation planning.** Virginia Polytechnic Institute and State Univ., Virginia Water Resources Research Center, Bulletin 136. 37pp.

2684 Shelby, B., Heberlein, T.A., Vaske, J.J., and Alfano, G., 1984. **Expectations, preferences, and feeling crowded in recreation activities.** Leisure Sciences 6:1-14.

The data presented "suggests that accurate expectations and self-selection by participants would help reduce perceived crowding." (p.12)

2685 Shelby, B., 1985. **Resource and activity substitutes for recreational salmon fishing in New Zealand.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.79-85.

2686 Stankey, G.H. and McCool, S.F., comp., 1985. **Proceedings--Symposium on Recreation Choice Behavior, Missoula, Montana, 1984.** U.S. Forest Service, Gen. Tech. Rep. INT-184. 106pp.

"Presents an overview paper and 11 contributed papers focused on the issue of the processes that underlie decision making by recreationists." (abstract)

2687 Texas Parks and Wildlife Department, 1985. **1985 Texas Outdoor Recreation Plan.** Texas Parks and Wildlife Department, Parks Division, Comprehensive Planning Branch. var. pag.

2688 Todd, H.R., 1984. **Report on the quality of tourism marketing and promotion done at the regional level.** Minnesota Office of Tourism. Var. pag.

2689 Travis, A.S., 1984 **The contribution of social sciences to the fields of tourism and the environment.** In: Doorn, J.W.M. van, ed. Toursim, in its socio-cultural context, as a factor of change. pp16-17.

2690 U.S. Department of the Interior and National Recreation & Park Assoc., 1981. **A national agenda for recreation research.** U.S. National Park Service, Recreation Resource Development Division. 261pp.

"This publication presents a summary report of two years of effort by over 500 participants to assess information gaps and research needs confronting researchers, research users and others concerned with recreation." (p.1)

2691 Uysal, M. and Crompton, J.L., 1985. **Deriving a relative price index for inclusion in international tourism demand estimation models.** Journal of Travel Research 24(1):32-34.

"This article describes a model which explains and predicts international flows to Turkey." (p.32)

2692 Vaux, H.J., Jr., Gardner, P.D., and Mills, T.J., 1984. **Methods for assessing the impact of fire on forest recreation.** U.S. Forest Service, Gen. Tech. Rep. PSW-79. 13pp.

Among the methods studied, contingent market valuation appeared the most promising. "In an illustrative application of this method, respondents were shown sequences of photographs of recreation sites depicting scenes before and after a fire. They were asked about their preferences among the scenes depicted and about their willingness-to-pay an entrance fee to the preferred sites." (Abstract)

2693 Wall, G., 1982. **Recreational land use in Muskoka.** In: Wall, G. and Marsh, J., eds. Recreational land use: Perspectives on its evolution in Canada. pp.139-154.

2694 Watson, A.E. and Roggenbuck, J.W., 1985. **Approximating recreation site choice: The predictive capability of a lexicographic semi-order model.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.55-60.

"The relevancy of a lexicographic semi-order model, as a basis for development of a microcomputer-based decision aid for backcountry hikers, was investigated." (p.55)

2695 West, P.C., 1984. **a test of the projection accuracy of the status group dynamics approach to recreation demand.** Leisure Sciences 6:15-45.

2696 Williams, D.R., 1985. **A developmental model of recreation choice behavior.** In: Stankey, G.H. and McCool, S.F., comp. Proceedings--Symposium on Recreation Choice Behavior. pp.31-37.

2697 Williams, S., 1985. **How the familiarity of a landscape affects appreciation of it.** Journal of Environmental Management 21:63-67.

Reports on an experiment that compares preferences between landscapes of varying familiarity. A photograph ranking task was used.

2698 Wood, T.J., 1985. **Trends in the camping industry.** University of Minnesota--Duluth, School of Business and Economics, Bur. of Bus. and Econ. Res. Working Paper no. 85-15. 33pp.

2699 Young, R.A. and Kent, A.T., 1985. **Using the theory of reasoned action to improve the understanding of recreation behavior.** Journal of Leisure Research 17:90-106.

"The study results demonstrate that the theory may be useful in predicting behavior and understanding the relationships among recreation behavior, intentions, attitudes, and beliefs." (p.90)

2700 Yu, J.-M., 1985. **The congruence of recreation activity dimensions among urban, suburban, and rural residents.** Journal of Leisure Research 17:107-120.

2701 Zundel, R., 1983. **Recreation and tourism in forest land use and management in Europe.** In: IUFRO Proc. intermeeting 1978, Subjectgroup Forest Landscape and Tourism Management Div. VI. 16pp.

WILDERNESS MANAGEMENT - NATURE CONSERVATION - NATIONAL PARKS

2702 Anderson, C.G. and Lime, D.W., 1984. **Boundary Waters Canoe Area--Quetico Provincial Park: An international partnership.** Western Wildlands 10(2):13-19.

2703 Barbee, R.D., 1985. **Guiding philosophy for managment of natural ecosystems in national parks.** In: Lotan, J.E. et al., tech. coord. Proc.--Symposium and Workshop on Wilderness Fire, 1983. U.S. Forest Service, Gen. Tech. Rep. INT-182:13-15.

2704 Burgess, J.M.S., 1982. **Planning for natural areas in practice.** In: Tyson, B. and Davis, G., eds. Papers presented at the Natural Area Management Workshop, Tasmania, 1982. 5pp.

2705 Conservation Foundation, 1985. **National parks for a new generation: Visions, realities, prospects.** Washington, D.C., Conservation Foundation. 407pp.

2706 Dooling, P.J., 1985. **Heritage landscapes: Rethinking the Canadian experience.** Forestry Chronicle 61:319-322.

One of the issues addressed is "the issue of legislation of wilderness in the national parks of Canada." (p.320)

2707 Doron, W.D., 1983. **RARE II and wilderness in California national forests: The policies of an enduring issue.** Ph.D. thesis, Claremont Graduate School; Ann Arbor, MI, University Microfilms, Int. 217pp.

2708 Droste zu Hulshoff, B. von and Gregg, W.P., Jr., 1985. **Biosphere reserves: Demonstrating the value of conservation in sustaining society.** Parks 10(3):2-5.

2709 Emerson, P.M. and Helfand, G.E., 1983. **Wilderness and timber production in the national forests of California.** Washington, D.C., Wilderness Society, Economic Policy Dept. 28pp.

2710 Fraser, A., 1984. **National parks policy and the law.** In: Mundy, A.N., chairman. Planning for leisure in the countryside. pp.69-90.

2711 Halffter, G., 1984. **Biosphere reserves: Conservation of nature for man.** Parks 10(3):15-18.

2712 Hammitt, W.E. and Brown, G.F., Jr., 1984. **Functions of privacy in wilderness environments.** Leisure Sciences 6:151-166.

2713 Keiter, R.B., 1985. **On protecting the national parks from the external threats dilemma.** Land and Water Law Review 20:355-420.

In addition to the problems caused by increased visitor use, the parks "also face problems due to activities occurring outside of park boundaries on public and private lands which threaten to degrade park reources and to detract from park visitors' experiences." Examples are energy exploration, development projects, and timber harvesting.

2714 Lucas, R.C., 1985. **Visitor characteristics, attitudes, and use patterns in the Bob Marshall Wilderness complex, 1970-1982.** U.S. Forest Service, Research Paper INT-345. 32pp.

The Bob Marshall Wilderness complex includes the Bob Marshall Wilderness, the Great Bear Wilderness, and the Scapegoat Wilderness. The major change in use observed in the study was a shift from predominantly horse use in 1970 to mainly backpacker use in 1982.

2715 Manning, R.E., 1985. **Crowding norms in backcountry settings: A review and synthesis.** Journal of Leisure Research 17:75-89.

"Crowding in outdoor recreation has been suggested as a normative concept. Review of the conceptual and empirical literature supports this notion and indicates that crowding norms are influenced by visitor characteristics, characteristics of those encountered, and situational variables." (p.75)

2716 Moore, A.W., 1984. **Operations manual for a protected area system: Guidelines for developing countries.** Rome, Food and Agriculture Organization of the U.N., FAO Conservation Guide no.9. 85pp.

Presents "a set of possible alternatives and considerations for the numerous managemnt and administrative policies which must usually be established for a protected area system...."

2717 Nature Conservancy Council, 1984. **Nature conservation in Great Britain.** Schrewsbury, Nature Conservancy Council. 2 vols.

Title of vol. 2: Nature conservation in Great Britain: Summary of objectives and strategy."

2718 Oliveira, R.A., Arthur, L.M., and Papastavrou, A.C., 1983. **A distributed lag approach to forecasting wilderness use.** Journal of Leisure Research 15:52-64.

"To demonstrate the feasibility of forecasting intraseasonal trends in wilderness use, rational form distributed-lag models are estimated using recreators' length of stay in three California wilderness areas during one summer season." (p.52)

2719 Oltremari, J.V. and Jackson, R.G., 1985. **Chile's national parks: Present and future.** Parks 10(2):1-4.

2720 Reilly, W.K., 1985. **National parks for a new generation.** Environment 27(6):18-20, 40-45.

"The cumulative impacts of heavy visitor use and deferred maintenance of resources, together with threats posed from activities originating outside park boundaries, will seriously damage the parks unless checked...." (p.19)

2721 Runge, C.F. and Gottlieb, K.C., 1983. **Wilderness lands and energy exploration: Some policy perspectives.** Washington, D.C., Wilderness Society, Economic Policy Dept. 36pp.

"This report examines the desirability of opening federal wilderness to oil and gas exploration and development." It looks at the oil and gas potential of wilderness as well as other public interests in these lands. (p.iii)

2722 Smith, P.E., 1982. **Restoration of remoteness and risk.** In: Tyson, B. and Davis, G., eds. Papers presented at the Natural Area Management Workshop, Tasmania, 1982. 9pp.

Discusses the value of remoteness of natural areas; the preservation and enhancement of remoteness; and the restoration of risk.

2723 Stankey, G.H., 1982. **Philosophy, science, and management: The fundamentals of natural area conservation.** In: Tyson, B. and Davis, G., eds. Papers presented at the Natural Area Management Workshop, Tasmania, 1982. 8pp.

2724 Tyson, B. and Davis, G., editors, 1982. **Papers presented at the Natural Area Management Workshop, Tasmania, 1982.** Royal Australian Institute of Parks and Recreation; National Parks and Wildlife Service - Tasmania. var. pag.

2725 Utter, J., 1983. **Opinions of Montanans on wilderness and resource development.** Journal of Forestry 81:435-437.

"The opinions of 400 Montana citizens indicate that Montanans strongly approve the wilderness concept and oppose the use of natural resources (oil, natural gas, timber, and minerals) located in wilderness areas." (p.435)

2726 Watson, J., 1982. **Role of the visitor in national park management.** In: Tyson, B. and Davis, G., eds. Papers presented at the Natural Area Management Workshop, Tasmania, 1982. 11pp.

Park managers nust consider ways of utilizing the potential of visitors to assist with the management of off-road areas. Specific examples of techniques used in the national parks of South Western Australia are discussed.

2727 Wayburn, E., 1985. **Alaska parks in peril.** Sierra 70(4):24, 26-27.

"In a race to meet a December deadline, the Park Service has issued a flood of ill-conceived management plans." (p.24) The Alaska National Interest Lands Conservation Act of 1980 mandated that the National Park Service present to Congress general management plans for the parks and preserves by

December, 1985.

2728 Wuerthner, G., 1985. **Managing the wild back into wilderness.** Western Wildlands 11(3):20-24.

2729 Bentley, O.G., 1985. **Science and education and the science of range management.** Rangelands 7(4):177-178.

2730 Kinney, W., 1984. **Economics and policy of shrubland management.** In: DeVries, J.J., ed. Shrublands in California: Literature Review and Research Needed for Management. University of California, California Water Resources Center Contribution no.191. pp.129-136.

A complete measure of the economic value of shrublands is particularly difficult "because of the nonmarket nature of many shrubland resources and the large uncertainties about wildfire and flood occurrence over time." (p.129)

2731 Nielsen, D.B., Godfrey, E.B., and Obermiller, F., 1985. **An evaluation of the Forest Service and Bureau of Land Management grazing appraisal report.** Utah Agricultural Experiment Station Research Report no.104. 58pp.

A formal review and critique of the report entitled, "Appraisal report estimating fair market rental value of public ranglelands in the western United States administered by USDA-Forest Service and USDI-Bureau of Land Management."

2732 Anderson, L.M. and Cordell, H.K., 1985. **Residential property values improved by landscaping with trees.** Southern Journal of Applied Forestry 9:162-166.

2733 Bourque, P., 1985. **Tree management in Montreal.** Journal of Arboriculture 11:200-206.

2734 DeBruin, H.W., 1983. **Urban and community forestry: The time is now.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.346-348.

Reports on the activities of the National Urban and Community Forestry Leaders Council.

2735 Hobaugh, M.E., 1985. **How a tree increases home value.** Pennsylvania Forests 75(4, 485):14, 18.

2736 Impens, R.A. and Paul, R., 1985. **Goals for urban forestry in Belgium in the year 2000.** Journal of Arboriculture 11:220-224.

2737 Johnston, P.A., 1985. **Urban forestry consultants: Their need and selection.** Journal of Arboriculture 11:218-219.

The author states that "Managing the urban forest is sometimes best accomplished with the help of an urban forestry consultant." (p.218)

2738 Kielbaso, J.J., 1983. **Preference of Detroit residents for urban forests and forestry programs.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.349-352.

"Detroit residents were sampled to provide information regarding their values toward trees." (p.349)

2739 Kostichka, C.J. and Cannon, W.N., Jr., 1984. **Costs of Dutch elm disease management in Wisconsin communities.** Journal of Arboriculture 10:250-254.

2740 Langford, R.C., 1985. **How valuable are your trees?** Pennsylvania Forests 75(4,485):12.

2741 More, T.A., Stevens, T.H., and Allen, P.G., 1983. **Economic valuation of urban open-space resources.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.336-339.

A benefit-cost analysis of four urban parks in Worcester, Mass. was conducted. Results showed that benefits exceeded operating costs by a ratio of 4.48 to 1.

2742 Robson, H.L., 1984. **Urban forestry in the Chicago suburbs.** Journal of Arboriculture 10:113-116.

2743 Schabel, H.G., 1983. **Urban forestry: Some lessons from Germany.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.340-345.

2744 Schroeder, H.W. and Green, T.L., 1985. **Public preferences for tree density in municipal parks.** Journal of Arboriculture 11:272-277.

"Optimal tree densities for scenic park landscapes were estimated by having public groups rate photographs of the parks." (p.272)

2745 Stirrat, R., 1985. **The place of trees in towns: A planner's view.** Arboricultural Journal 9:201-205.

"Urban forestry could well provide a structured context for a better appreciation by planners and others of the place of trees in towns." (p.201)

2746 Talbot, J.F. and Kaplan, R., 1984. **Needs and fears: The response to trees and nature in the inner city.** Journal of Arboriculture 10:222-228.

"Interviews were conducted with 97 Detroit residents living in primarily Black low- and moderate-income areas, in order to assess the preferences of inner city residents for different types of natural areas." (p.222)

2747 Tate, R.L., 1984. **Municipal tree management in New Jersey.** Journal of Arboriculture 10:229-233.

2748 Tate, R.L., 1984. **Status and operating costs of selected municipally-owned tree nurseries in the northeast United States.** Journal of Arboriculture 10:286-288.

2749 Tate, R.L., 1985. **Uses of street tree inventory data.** Journal of Arboriculture 11;210-213.

"Methods are discussed which illustrate ways data from properly planned street tree inventories can be used to create an urban tree management program." (p.210)

2750 Wagar, J.A., 1985. **Communications for urban forestry.** Journal of Arboriculture 11:296-300.

2751 Daru, R.D. and Tips, W.E.J., 1985. **Farmers participation and socio-economic effects of a watershed management programme in Central Java (Solo river basin, Wiroko watershed).** Agroforestry Systems 3:159-180.

"A self-help watershed management project in...Central Java, Indonesia, is discussed in terms of its achievements to combine activities to improve the physical, the social and the economic environment." (p.159)

2752 Weaver, P.L., 1982. **Watershed management in the Caribbean Islands--an outline of principles and concepts.** In: Lugo, A.E. and Brown, S., eds. Forestry in the Caribbean: Proceedings of the First Workshop of Caribbean Foresters, 1982. U.S. MAB Report no.7. pp.72-82.

WILDLIFE AND FISH

2753 Crawford, H.S., 1984. **Wildlife habitat management and changing forest practices in the northeast.** Northern Journal of Applied Forestry 1:12-14.

"The most practical opportunity for increasing wildlife habitat values usually is on intermediate-quality sites."

2754 Driver, B.L., 1985. **Specifying what is produced by management of wildlife by public agencies.** Leisure Sciences 7:281-295.

"This paper is concerned with wildlife valuation by public agencies. Specifically, 'What are the products of wildlife management that have value?"

2755 Evans, R.D., 1983. **Opportunities for wildlife management on non-industrial private forest lands.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.207-210.

2756 Guynn, D.C., Jr., 1983. **Potential for income from forest wildlife.** In: Ham, D.L. and Guynn, D.C., eds. Integrating wildlife considerations and forest management. pp.30-38.

Addresses the potential for income from forest wildlife on private lands in the Southeastern U.S.

2757 Ham, D.L. and Guynn, D.C., eds., 1983. **Integrating wildlife considerations and forest management.** Proceedings Third Annual Forestry Forum, Clemson Univ., Coop. Ext. Serv., Dept. of For., 1983. 55pp.

2758 Kellert, S.R. and Brown, P.J., 1985. **Human dimensions information in wildlife management, policy, and planning.** Leisure Sciences 7:269-280.

"Introductory comments to the special issue on human dimensions in wildlife management."

2759 Kellert, S.R., 1985. **Birdwatching in American society.** Leisure Sciences 7:343-360.

"Based on the results of a national study of American attitudes, knowledge and behaviors toward animals, the extent of participation in birdwatching is described." (p.343)

2760 Kerrick, M.A., Johnson, K., and Pedersen, R.J., 1984. **What information is necessary for planning the managment of old-growth forest for wildlife?** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.383-386.

"Managing old-growth forests for wildlife is an important aspect of the forest planning process." (p.383)

2761 Komarek, E.V., 1985. **Wildlife and fire research: Past, present, and future.** In: Fire's Effects on Wildlife

Habitat--Symposium Proceedings, 1984. U.S. Forest Service, Gen. Tech. Rep. INT-186:1-7.

2762 Lustig, T.D., 1983. **Influencing industrial forest management policy to accomodate wildlife.** In: Ham, D.L. and Guynn, D.C., eds. Integrating wildlife considerations and forest management. pp.22-29.

2763 Pope, C.A., III, Adams, C.E., and Thomas, J.K., 1984. **The recreational and aesthetic value of wildlife in Texas.** Journal of Leisure Research 16:51-60.

"In Texas, the value of wildlife is at least partly reflected in its hunt lease and rural land markets. By studying these markets, estimates of the value of wildlife in Texas can by made." (p.59)

2764 Robertson, G.C., 1983. **Wildlife input into statewide forest resource planning.** In: America's hardwood forests--opportunities unlimited. Proceedings, 1982 convention, Society of American Foresters. pp.211-215.

2765 Schoolmaster, F.A. and Frazier, J.W., 1985. **An analysis of angler preferences for fishery management strategies.** Leisure Sciences 7:321-342.

"Multivariate path analysis was used to investigate the causal linkages between independent subsystems composed of user attributes, visit characteristics, perceived site problems, and a dependent subsystem composed of angler preferences for fishery management strategies." (p.321)

2766 Shaw, W.W., Mangun, W.R., and Lyons, J.R., 1985. **Residential enjoyment of wildlife resources by Americans.** Leisure Sciences 7:361-375.

"Although most efforts to provide and enhance opportunities to engage in wildlife-oriented recreation have focused on rural or undeveloped environments, many people participate in nonconsumptive uses of wildlife near their homes."

2767 Snepenger, D.J. and Ditton, R.B., 1985. **A longitudinal analysis of nationwide hunting and fishing indicators: 1955-1980.** Leisure Sciences 7:297-319.

2768 Beers, B.L. and Bailey, R.L., 1985. **Yields, stand structure and economic conclusions based on a 22-year-old site preparation study with planted loblolly and longleaf pines.** Georgia Forest Research Paper no.55. 7pp.

2769 Beuter, J., 1985. **A businesslike approach to timber.** Forest Planning 6(6):15-18.

The author advocates the establishment of "timber business units" which "would set aside the land most suited to growing timber."

2770 Blyth, J.E. and Smith, W.B., 1984. **Pulpwood production in the north-central region by county, 1982.** U.S. Forest Service, Resource Bulletin NC-79. 22pp.

2771 Blyth, J.E., Bailey, E.M., and Smith, W.B., 1984. **Fuelwood production and sources in Wisconsin, 1981.** U.S. Forest Service, Resource Bulletin NC-75. 54pp.

2772 Bullard, S.H. and Klemperer, W.D., 1984. **Thinning optimization for mixed-species forests.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.525-529.

2773 Comstock, G.L., 1984. **Matching products of young forests to the market place: What are the challenges?** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.102-109.

"The growth potential for coniferous forest in the U.S. is tremendous. The opportunity exists for more than meeting our own needs and being a significant force in world markets for softwoods." (p.108)

2774 Convery, F.J. and Dripchak, K., 1983. **Energy crops, forestry and regional development in Ireland.** Dublin, Economic and Social Research Institute. 166pp.

Two of the objectives of the study are: (1) "To estimate the financial returns to agriculture, conventional forestry and energy crops on land which is marginal for farming; and (2) to examine the manner and extent to which private forest landowners could be interested in tree growing." (p.2) Includes information on production costs, markets, and policy implications.

2775 Craighead, M.R., 1985. **Economic potential for eastern redcedar in Oklahoma.** In: Eastern Redcedar in Oklahoma Conference, Stillwater, OK, 1985. Proceedings. Oklahoma State Univ., Coop. Ext. Serv., E-849. pp.35-39.

2776 Daniels, B.J., Daniels, S.E., and Hyde, W.F., 1985.

Capital-labor substitution in timber growing on non-industrial private lands in North Carolina. Southeastern Center for Forest Economics Research, SCFER Working Paper no.13. 11pp.

"The purpose of this analysis is to estimate the elasticity of substitution between labor and capital inputs to timber production on non-industrial private forest land in North Carolina." (p.1)

2777 Dippon, D.R. and Munson, K.R., 1985. **Influence of various economic components on the profitability of midrotation fertilization.** In: Proceedings Third Biennial Southern Silvicultural Research Conference, 1984. U.S. Forest Service, Gen. Tech. Rep. SO-54. pp.351-359.

2778 Field, D.B., 1982. **Economic benefits from fuelwood harvesting in forest management.** In: Obyc, R.J., comp. Proceedings: Fuelwood Management and Utilization Seminar, East Lansing, 1982. pp.67-81.

2779 Guldin, R.W., 1985. **Bids for silvicultural services: Estimating reasonable costs and identifying bidding errors.** Canadian Journal of Forest Research 15:599-606.

2780 Guldin, R.W., 1984. **Factors affecting regeneration of marginal forestland: A southern perspective.** In: New forests for a changing world. Proceedings, 1983 Convention, Society of American Foresters. pp.439-443.

"Forest land is labeled 'marginal' for timber growing when it is questionable whether the present worth of the anticipated harvest returns exceeds the present worth of regeneration and other operation and management costs." "This paper discusses factors influencing current decisions to regenerate marginal southern woodlands." (p.439)

2781 Howard, T.E., 1984. **An economic model for thinning natural stands of eastern white pine.** In: New forests for a changing world. Proceedings, 1983 Convention, Society of American Foresters. pp.503-506.

2782 Hutchins, C.C., Jr., 1985. **Southern pulpwood production, 1983.** U.S. Forest Service, Resource Bulletin SE-79. 26pp.

2783 Kilkki, P., 1982. **Timber production planning with linear programming.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.266-292.

Attempts "to combine the traditional forest mensuration oriented timber production planning with timber production economics via mathematical programming." (p.290)

2784 Kopetz, H., 1984. **Die Bedeutung der Biomasse fur die Energieversorgung Osterreichs.** Allgemeine Forstzeitung

95:257-264.

In German. As a result of the growing dependence on foreign energy, the progressive decrease of the inland energy-reserves and the saving of energy, the forest and industrial biomass is more and more taken into consideration as a contribution to energy supply in Austria. (WK, WK)

2785 Loffler, H., 1985. **Aufarbeitung und Verwertung anhaltender Ubernutzungen.** Forstwissenschaftliches Centralblatt 104:271-279.

In German; English summary. "Harvesting and utilization of continuing increased annual cuts." The paper discusses harvesting and utilization of continuing increased annual cuts caused by the forest decline. (WK, WK)

2786 McCurdy, D.R. and Burde, J.H., 1985. **A comprehensive fuelwood study in Illinois.** National Woodlands 8(4):6-7, 12.

Compares firewood consumption in Illinois with national data and then addresses the impact of such consumption on Illinois' forest resources.

2787 Mills, T.J., Shinkle, P.B., and Cox, G.L., 1985. **Direct costs of silvicultural treatments on national forests 1975-78.** U.S. Forest Service, Research Paper WO-40. 23pp.

"The direct costs of silvicultural treatments was estimated from service contracts awarded on National Forests throughout the United States in 1975-78."

2788 Newman, D.H. 1985. **A discussion of the concept of the optimal forest rotation and a review of recent literature.** Research Triangle Park, NC, Southeastern Center for Forest Economics Research, SCFER Working Paper no.1. 39pp.

This paper is "intended as a synopsis and annotated bibliography of the literature...concerning forest valuation and the determination of the optimum forest rotation length."

2789 Newman, D.H., Gilbert, C.E., and Hyde, W.F., 1985. **The optimal forest rotation with evolving prices.** Research Triangle Park, NC, Southeastern Center for Forest Economics Research, SCFER Working Paper no.2. 13pp.

2790 North Carolina State Forest Fertilization Cooperative, 1984. **Economic evaluations of fertilization in thinned stands.** NCFFC Annual report 13:14-17.

2791 Obyc, R.J., comp., 1982. **Proceedings: Fuelwood Management and Utilization Seminar, East Lansing, Mich., 1982.** Sponsored by U.S. Forest Service, Northeastern Area State and Private Forestry; Michigan State Univ., Dept. of For., Coop. Ext. Serv., and U.S. Dept. of Energy. 152pp. + appendix.

2792 Price, C., 1985. **The distribution of increment and the economic**

theory of thinning. Quarterly Journal of Forestry 79:159-168.
"This paper explores the economic theory behind the distribution function of thinning." (p.159)

2793 Schulz, H., 1985. **Mogliche Einflusse eines Waldsterbens auf Holzversorgung, Holzwirtschaft und Holzqualitat.** Forstwissenschaftliches Centralblatt 104:243-255.
In German; English summary. "Potential effects of forest decline on wood supply, wood-working industry, and wood quality." The paper discusses the significance of wood as a raw and working material. A description is given of the fatal effects which the decline of forests on northern temperate zones may have on the industrial wood supply and on the wood working industry all over the world. (WK,WK)

2794 Siegel, W.C., 1985. **Have you considered timber leasing?** Forest Farmer 44(5):58-60.
"Long-term forestry contracts and landowner assistance agreements with forest industry hold considerable promise for improving large segments of the southern forest resource." (p.60)

2795 Straka, T.J. and Watson, W.F., 1985. **Costs of forestry practices.** Forest Farmer 44(5):16-22.
"Cost estimates of praticing forestry in the South during 1984 and cost changes during the 1952-1984 period are presented in this report." (p.16)

2796 Talbert, J.T., Weir, R.J. and Arnold, R.D., 1985. **Costs and benefits of a mature first-generation loblolly pine tree improvement program.** Journal of Forestry 83:162-166.
"Tree improvement can be one of the most cost-effective alternatives available to forest managers to improve forest productivitiy." (p.165)

2797 Thompson, M.A., 1984. **Evaluation of a mechanized tree-planting operation.** U.S. Forest Service, Research Paper NC-258. 13pp.
The author evaluated cost and productivity of a mechanized red pine planting operation of four sites.

2798 van Wyk, G. and van der Sijde, H.A., 1983. **The economic benefits of forest tree breeding.** South African Forestry Journal 126:48-54.

2799 Wessels, N.O. and Kassier, H.W., 1985. **A computerised system for forest management and silvicultural planning and control in even-aged plantation forestry.** South African Forestry Journal 132:62-64.
Paper presented at the Seminar on Information Management in Forestry held at the Faculty of Forestry, Stellenbosch, Nov. 15-16, 1984. Describes a computerized plantation analysis system, COMPAS.

2800 Zipper, C.E., 1983. **Economic analysis and the planting of hardwood trees on surface mined lands.** In: Proc. Third Annual Better Reclamation with Trees Conference, Terre Haute, Indiana. Hosted by Purdue Univ., Dept. of For. and Nat. Res. pp.202-216.

"When viewed from an economic perspective, mined lands are seen to possess distinct advantages as forestry sites."

2801 Berck, P. and Bible, T., 1984. **Solving and interpreting large-scale harvest scheduling problems by duality and decomposition.** Forest Science 30:173-182.

"This paper presents a solution to the timber harvest scheduling problem that takes advantage of both the duality of linear programming formulations currently being used for timber harvest scheduling and the characteristics of decomposition inherent in the model formulation." (p.173)

2802 Cubbage, F.W., 1983. **Tract size and harvesting costs in southern pine.** Journal of Forestry 81:430-433, 478.

"Average harvesting costs per cord were estimated by computer simulation for several southern pine harvesting systems on tracts ranging from 5 to 360 acres in size." (p.430)

2803 Fight, R.D., LeDoux, C.B., and Ortman, T.L., 1984. **Logging costs for management planning for young-growth coast Douglas-fir.** U.S. Forest Service, Gen. Tech. Rep. PNW-176. 10pp.

"Logging cost equations are provided that can be used for analyses of silvicultural regimes." (abstract)

2804 Hoeksema, R. and Hoppe, W., 1985. **Timber harvest aesthetics.** National Woodlands 8(4):9.

"A growing concern of many landowners is the condition in which their woodlot is left after a timber harvest." (p.9)

2805 Hokans, R.H., 1983. **Evaluating spatial feasibility of harvest schedules with simulated stand-selection decisions.** Journal of Forestry 81:601-603, 613.

"Current practices in harvest planning often do not account for the possibility that adjacent cutting units may create openings that exceed policy limitations... A procedure has been developed to assist in identifying these excesses...." (p.601)

2806 Humphries, W.C., Jr., Montgomery, A.A., and Thompson, R.D., 1985. **The economic management of southern pine assisted by the personal computer.** Georgia Forest Research Paper no.56. 11pp.

The availability of affordable personal computers and related decision-making software now enables the forester to cope with the complexities of devising a harvest schedule that is economically optimum for each unique stand of timber. (p.4)

2807 Ince, P.J., Henley, J.W., Grantham, J.B., and Hunt, D.L., 1984. **Costs of harvesting beetle-killed lodgepole pine in eastern Oregon.** U.S. Forest Service, Gen. Tech. Rep. PNW-165. 26pp.

2808 Society of American Foresters, 1984. **Scheduling the harvest of old growth.** Bethesda, MD, Society of American Foresters. SAF

Resource Policy Series. 44pp.

Includes "Old-growth forests in the Pacific Northwest: A position of the Society of American Foresters" and "Report of the SAF Task Force on Scheduling the Harvest of Old-Growth Timber."

2809 Bengtsson, G., 1982. **The Swedish HUGIN system for regional long-term forecasts of timber yields.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.231-244.

2810 Evans, J., 1985. **A time to plant--the complementary need to expand intensive forestry programmes in developed and developing countries.** Journal of World Forest Resource Management 1:151-161.

"The major constraints on future wood supplies are discussed. Both local shortages and global trends point to the need for increased planting of trees. There is a review of the prospects for improving wood supplies by means of intensive fast-growing plantations, both in the tropics and in temperate developed nations." (p.151)

2811 Hadi, Y., 1985. **Future log production from the forests of Sabah, Malaysia.** Universiti Pertanian Malaysia, Faculty of Forestry, Occasional Paper no.1. 9pp.

"Six possible scenarios of future log production from the forests of Sabah are described, each scenario representing a different cutting cycle, silvicultural treatments and timber yield." (p.1)

2812 Hair, D., 1985. **A review of the timber situation in the United States and the implications for the South.** In: Forestry Forum, 15th, 1985. Proceedings. pp.7-31.

2813 Hair, D., 1984. **A review of the timber situation in the United States and the implications for the South.** In: Proc. of the Symposium on Utilization of the Changing Wood Resource in the Southern United States, Raleigh, 1984. North Carolina State Univ., School of Forest Resources. pp.13-39.

2814 Haynes, W.N., 1985. **Softwood deficits in the '90s--why?** In: American Pulpwood Association Inc. Where is the wood and who is going to own it? APA 85-P-6. pp.13-18.

2815 Johansson, P.-O. and Lofgren, K.-G., 1983. **Six different results on the properties of the timber supply function.** In: Andersson, A.E. et al., eds. Forest sector development. pp.169-181.

2816 Johnson, J.D., 1985. **Backlog treatment as a means of reducing costs of delivered wood in northern Ontario.** Great Lakes Forest Research Centre, Miscellaneous Report no.25. 17pp.

"Future average costs of delivered wood are calculated for northern Ontario by using estimates of the current average haul distance and merchantable volume per hectare in the region." (abstract)

2817 Kallio, M., 1982. **Sustained yield in forestry--notes for discussion.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.255-265.

2818 Kronrad, G.D., Franklin, E.C., and de Steiguer, J.E., 1985. **Evaluating landowners assistance programs and other wood procurement options.** Southern Journal of Applied Forestry 9:186-191.

The authors "outline here a methodology of capital budgeting for the purpose of evaluating investment opportunities in landowner assistance programs and determining the optimum allocation of capital for wood procurement." A computer program which uses this method is described. (p.186)

2819 Peterson, R.M., 1985. **Timber supply: The situation in the South.** Forest Farmer 44(9):14-16.

Discusses the study, "The South's Fourth Forest: Alternatives for the Future," which is concerned with, among other things, economic opportunities to increase timber supplies.

2820 Rose, D.W., Ek, A.R., Hoganson, H.M., and Aube, P., 1984. **A spatial regional timber supply model for industrial expansion.** Forest Products Journal 34(1):21-27.

A regional timber supply assessment model is described. "TSAM was designed as a strategic planning tool to complement conventional empirical planning efforts... While developed for the Lake States, it is transportable to other regions."

2821 Tedder, P.L., 1983. **Simulating management intensification in national timber-supply projections.** Journal of Forestry 81:607-609.

2822 Whiteside, I.D., 1984. **Review of future New Zealand wood supply and quality.** In: Proceedings of Pacific Timber Engineering Conference, Auckland, N.Z., 1984. Wellington, Inst. of Prof. Engineers NZ. Vol.3. pp.715-722.

2823 Zobel, B. and Kellison, R.C., 1984. **Wood--where will it come from, where will it go? (A comparison of the Southern United States with South America).** In: Proc. of the Symposium on Utilization of the Changing Wood Resource in the Southern United States, Raleigh, 1984. North Carolina State Univ., School of Forest Resources. pp.1-12.

The timber situation in South America is compared to that in the southern United States. The forest industry in the southern U.S. will need to reorganize to meet the challenge of wood supply from the Tropics and Subtropics. (p.1)

2824 American Pulpwood Association Inc., 1985. **Timber sale contract reforestation clauses.** Washington, D.C., American Pulpwood Association Inc. 85-A-3. 19pp.

2825 Flick, W.A., 1985. **Economics of timber sale decisions.** Southern Journal of Applied Forestry 9:146-150.

2826 Howard, J.O. and DeMars, D.J., 1985. **Comparison of logging residue from lump sum and log scale timber sales.** U.S. Forest Service, Research Paper PNW-337. 8pp.

"Data from 1973 and 1980 logging residues studies were used to compare the volume of residue from lump sum and log scale timber sales." (abstract)

2827 Mead, W.J., 1985. **An economic appraisal of U.S. Forest Service timber sales in the Pacific Northwest.** Mimeo. 26pp.

2828 O'Toole, R., 1984. **Cross-subsidization--the hidden subsidy.** Forest Planning 5(2):15-17.

U.S. Forest Service timber sales combine low-valued with high-valued species.

2829 Schuster, E.G. and Jones, J.G., 1985. **Below-cost timber sales: Analysis of a forest policy issue.** U.S. Forest Service, Gen. Tech. Rep. INT-183. 17pp.

Explores the question: "Should the Forest Service sell timber for less than the costs associated with the sale?"

2830 U.S. General Accounting Office, 1984. **Congress needs better information on Forest Service's below-cost timber sales.** U.S. General Accounting Office. 46pp.

2831 U.S. General Accounting Office, 1984. **Information on Forest Service below-cost timber sales for national forests in Colorado.** U.S. General Accounting Office. 12pp.

A 6 page letter to Senator Gary Hart from J. Dexter Peach, GAO Director, accompanied by 6 pages of tables giving details on individual sales for each Colorado forest.

2832 U.S. General Accounting Office, 1983. **Skewed bidding presents costly problems for the Forest Service timber sales program.** Report to...House of Representatives by the Comptroller General of the U.S. General Accounting Office. 21pp.

"The practice of skewed bidding--in which a bidder in a multispecies timber sale attributes most of the total bid value to one species and bids the minimum price on the other species in the sale--has been widespread in the Forest Service's three western regions, is continuing, and has caused costly problems for the Service's timber sales program."

2833 U.S. General Accounting Office, 1982. **Weaknesses found in timber sale practices on the Plumas National Forest.** U.S. General Accounting Office. 46pp.

WOOD-USING INDUSTRIES

2834 Andersson, A.E. and Johansson, B., 1984. **Industrial dynamics, product cycles, and employment structure.** International Institute for Applied Systems Analysis. Working Paper WP-84-9. 86pp.

"This paper is concerned with the interindustrial and spatial consequences of technological development... The theory of product cycles is designed to provide...an analytical framework for studies of industrial division of labor between regions and under conditions of technological development." (p.67)

2835 Atkinson, L.R., 1984. **The forests and forest industries of the USSR.** In: Gill, J.G.S. and Malcolm, D.C., eds. International aspects of forestry. pp.1-18.

2836 Baudin, A., 1982. **Applied forecasting in the forest sector.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.194-218.

"The example presented here concerns the Swedish pulp industry and one division of SCA, the largest Swedish pulp paper producer." p.195.

2837 Bills, D.J., 1984. **The potential effect of salvage operations on forestry and forest based industries.** Appita 37:414-418.

"The objective of this paper is to examine the impact that large scale timber salvage operations can have upon forest management and forest based industries and to review some of the factors which need to be considered when planning the end use of salvage wood." (p.414) "All costs and benefits to processes and markets need to be identified before the calamity." (p.418)

2838 Bradley, R.T., 1985. **The UK timber industry.** Commonwealth Forestry Review 64:181-186.

Address to the 1985 Annual General Meeting of the Commonwealth Forestry Association at Bush Estate, Roslyn, Scotland on April 19, 1985.

2839 Canham, H.O., 1985. **Regional economic impacts of timber-based activities: A user's guide.** Northern Journal of Applied Forestry 2:71-75.

"This paper presents an outline of the timber system that will facilitate study of state and substate regional economic impacts." "A field study conducted in New York shows an example of a small area impact study." (p.71)

2840 Conway, S.J., 1985. **With the skill and a will to perform--people, process and productivity.** University of British Columbia, H.R. MacMillan Lectureship in Forestry, March 14, 1985. 19pp.

2841 Currie, A.D., 1983. **The cost effectiveness of wood preservation.** In: Wood Preservation Symposium, Pretoria, 1983. National Timber Research Institute. 9pp.

2842 Eala, R.C. and Alcachupas, P.L., 1983. **Cost of coconut lumber production.** FPRDI Journal 12(1&2):16-21, 31.

Production cost of harvesting coconut palm, sawmilling trunks into lumber, and processing them into flooring and siding was assessed.

2843 Economic Commission for Europe, and FAO, 1985. **Survey of the structure of the sawmilling industry.** Timber Bulletin 38(3):1-36.

A special issue. Presents data for 24 European countries, Canada and the U.S.

2844 El Serafy, S., 1985. **The pulp and paper industry: How far must it be protected? Advantages of free trade.** Philippine Lumberman 31(1):33, 35, 37, 39, 62.

2845 Epperson, W.W., Jr., 1985. **Furniture industry trends and outlook.** In: Forestry Forum, 15th, 1985. Proceedings. pp.75-81.

2846 Ewing, A.J., 1985. **Energy efficiency in the pulp and paper industry with emphsis on developing countries.** Washington, D.C., World Bank. World Bank Technical Paper no.34. 91pp.

2847 FAO, 1985. **Pulp and paper capacities survey 1984-1989.** Rome, Food and Agriculture Organization of the United Nations. 178pp. + app.

2848 Flick, W.A., 1985. **The wood dealer system in Mississippi: An essay on regional economics and culture.** Journal of Forest History 29:131-138.

2849 Fox, J.C., 1985. **The economic impacts of the forest industries in Virginia.** In: Forestry Forum, 15th, 1985. Proceedings. pp.1-5.

2850 Gill, D.R., 1984. **The pulp and paper industry and the Maine economy.** Forest Technique 84(7):7. 2pp.

2851 Gorte, J.F. and Fletcher, W.W., 1984. **Technology, timber and the future.** Renewable Resources Journal 2(2/3):16-19.

Discussion of the contribution of technology to the productivity and competitiveness of the U.S. forest products industry.

2852 Gregersen, H.M., Haygreen, J., Strees, A., and Holland, I., 1984. **Factors affecting productivity change in the forest products sector.** In: New forest for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.569-573.

2853 Guder, F. and Buongiorno, J., 1984. **An interregional analysis of the North American newsprint industry.** Interfaces 14(5):85-95.

2854 Hoover, W.L. and Ringe, J.M., 1984. **Technological progress in the U.S. forest products industry--formulation of a general model.** In: New forests for a changing world. Proceedings, 1983 convention, Society of American Foresters. pp.563-568.

"This paper review the role of technological progress in the development of natural resources in general, timber in particular, and suggests a broadened analytical base for the assessment of timber supply issues." (p.563)

2855 Irland, L.C., 1983. **Maine's changing forest products industry.** Maine Business Indicators v.28 no.5. 6pp.

2856 Johansson, B., 1982. **Structural change in the forest industry--a framework of models.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.117-157.

2857 Leiviska, K., 1982. **Models for production planning and control.** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.293-326.

This paper is concerned with pulp mill production scheduling.

2858 Lichty, R.W., Flannery, B., and Peterson, P., 1982. **Development and application of an input-output simulation model for forest industry development in northeastern Minnesota.** University of Minnesota, Duluth, School of Business and Economics, Bureau of Business and Economic research, Working Paper no.82-3. 31pp.

2859 Major, M., 1985. **What's the big deal about corporate mergers?** Journal of Forestry 83:406-410.

The author states that "the mere exchange of companies or timberlands doesn't appear to be particularly harmful in itself." (p.408)

2860 McLain, W.H., 1985. **Colorado's industrial roundwood production and mill residues, 1982.** U.S. Forest Service, Resource Bulletin INT-35. 13pp.

2861 Merrifield, D.E., 1985. **Imputed rental prices and capital stock estimates for equipment and structures in the U.S. lumber and plywood industries.** Applied Economics 17:243-256.

"...two methods of determining rental prices and capital stocks for equipment and structures are considered." p.243.

2862 Ondro, W.J. and Williamson, T.B., 1985. **The forest industry in the economy of Saskatchewan, 1979-80.** Northern Forest

Research Centre, Information Report NOR-X-270. 74pp.
"The forest industry in Saskatchewan was surveyed in 1980. The results are analyzed in this report in terms of capital, employment impact, capacity and production, markets, annual revenues and expenditures, and socioeconomic impact." (p.iii)

2863 Picornell, P., 1985. **The pulp and paper industry: How far must it be protected? An opinion from a developing country.** Philippine Lumberman 31(1):32, 34, 36, 38.

2864 Ruderman, F.K. and Warren, D.D., 1985. **Production, prices, employment, and trade in Northwest forest industries, first quarter 1985.** U.S. Forest Service, Resource Bulletin PNW-126. 49pp.

2865 Shallau, C.H., Maki, W.R., Foster, B.B., and Redmond, C.H., 1985. **North Carolina's forest products industry: Performance and contribution to the State's economy.** U.S. Forest Service, Research Paper PNW-343. 22pp.

2866 Siaguru, P. and Wigston, D.L., 1985. **National manpower assessment and the needs of the forest industry in Papua New Guinea.** Klinkii 3(1):89-102.

2867 Sinclair, S.A., Hassler, C.C., Bolstad, K., and Kallio, E., 1985. **Characteristics of independent loggers: Productivity, employees, profitability.** Forest Products Journal 35(5):19-24.
"A profile of general physical and financial characteristics of 23 logging firms in northern Minnesota is presented."

2868 Steele, P.H. and Risbrudt, C.D., 1985. **Efficiency of softwood sawmills in the southern United States in relation to capacity.** Forest Products Journal 35 (7/8):51-56.
"The general trend found in this analysis is for increasing conversion efficiency with increasing mill size." (p.56)

2869 Strangh, L., 1984. **The Swedish and Finnish forest industries.** In: Gill, J.G.S. and Malcolm, D.C., eds. International aspects of forestry. pp.19-29.

2870 Strees, A., 1984. **Productivity change in the U.S. forest industries.** Ph.D. thesis, University of Minnesota. 136pp. + app. + bibl.
"This study explores the sources of productivity changes in the U.S. forest products sector." (p.2)

2871 Thomassin, P.J. and Baker, H.L., 1985. **Estimating the impacts of increased forest industry outputs on the Hawaiian economy by using input-output analysis.** Hawaii Institute of Tropical

Agriculture and Human Resources, Research Series no.019. 32pp.
Effect of two different levels of forest land development were studied.

2872 U.S. Office of Technology Assessment, 1983. **Wood use: U.S. competiviveness and technology.** Washington, D.C., U.S. Congress, OTA-ITE-210. 202pp.
This assessment surveys the contribution of the forest products industry to the U.S. economy.

2873 Western Wood Products Association, 1985. **1984 statistical yearbook of the western lumber industry.** Portland, Oregon, Western Wood Products Assoc. 33pp.
In addition to its basic tables of western lumber production this edition of the Yearbook includes a profile of western sawmills. Timber sources, channels of distribution, processing patterns and marketing areas of lumber producers state-by-state throughout the region are presented.

2874 Wibe, S., 1983. **Technological forecasting: An introduction to models and methods with empirical illustration from the forest sector.** International Institute for Applied Systems Analysis. Working Paper WP-83-70. 34pp.
"This paper deals with methodology for technological forescasting and for estimating future demand of wood products. Special attention is paid to forecasting input coefficient for capital and labor as well as to the relation between per capita income and consumption of wood products." (p.iv) Discusses the situation in both developed and developing countries.

2875 Wibe, S., 1983. **Techonological forecasting: An introduction to models and methods with empirical illustration from the forest sector.** In: Andersson, A.E. et al., eds. Forest sector development. pp.92-132.

2876 Wibe, S., 1982. **What is shown by a macro production function?** In: Andersson, A.E. et al., eds. Proc. from a Nordic Workshop on Models of the Forest Sector, 1980. pp.158-185.
A study of the Swedish pulp and paper industry, 1920-1974.

2877 Chapman, A.G. and Wray, R.D., 1985. **Christmas trees for pleasure and profit.** 3rd ed., New Brunswick, NJ, Rutgers University Press. 212pp.

Includes a chapter on marketing.

2878 Kessler, G.D., 1985. **Growing and marketing Christmas trees in South Carolina.** South Carolina Cooperative Extension Service, Circular 566. 13pp.

Revised, 1985.

2879 Yellappa Reddy, A.N., 1985. **Non-wood natural resources, economic activity and regional development.** Myforest 21(1):1-7.

"Non-wood forest products form a source of raw materials for cottage industries, which generate employment to millions of people living in rural areas, who are normally unemployed or underemployed." (p.6)

2880 American Plywood Association, 1984. **Foundation for the future: A report on market potential for plywood in Latin America.** Tacoma, Wash., American Plywood Assoc. 30pp.

2881 Anderstig, C., 1983. **Actual and predicted trade flows of forest products.** In: Andersson, A.E. et al., eds. Forest sector development. pp.25-51.

2882 Araman, P.A., 1984. **U.S. hardwood exports.** In: Proceedings Twelfth Annual Hardwood Symposium, Hardwood Research Council pp.166-179.

2883 Barnes, C.S. and Sinclair, S.A., 1985. **Distribution and marketing of building products: Past and present.** Forest Products Journal 35(9):41-46.

2884 Batten, D., Johansson, B., and Kallio, M., 1983. **The analysis of world trade in forest products: Part 1--Conceptual and empirical issues.** International Institute for Applied Systems Analysis. Working Paper WP-83-50. 58pp.

The stated purposes of this paper are "raising issues pertaining to the analysis of trade flows in forest products and identifying the criteria that the global trade model must satisfy." (p.iii)

2885 Becker, M., 1985. **Waldschaden und Holzmarkt (lehre).** Allgemeine Forst- und Jagdzeitung 156:149-152.

In German; English summary. Forest damages on large areas probably will have an impact on forest products markets. Measures adequate to prevent market distortions in case of roundwood "oversupply" are being discussed. (WK, WK)

2886 Beier, R.J., 1984. **Marketing forest products for woodland owners.** Timber Producer 1984, no.10. pp.36-38.

2887 Berck, P. and Bible, T., 1985. **Wood products futures markets and the reservation price of timber.** Journal of Futures Markets 5:311-316.

The authors "examine the use of futures markets to produce appraisals that do not depend on past prices." Using data from the Siuslaw National Forest in Oregon, these futures-oriented appraisals were tested against several variants of the Forest Service method.

2888 Betters, D.R., Hof, J.G., and Ryan, P.P., 1984. **Demand for commercially delivered domestic fuelwood in Colorado, 1980.** U.S. Forest Service, Research Note RM-443. 4pp.

2889 Blackmer, S.D., 1985. **Lost opportunities: The export of sawlogs to Canada.** Northern Logger and Timber Processor 34(4):10-11,

30.
Reports on the activities of a group called S.E.L.L.-U.S.A. (Stop the Export of Logs and Labor).

2890 Boyd, R. and Krutilla, K., 1985. **The welfare impacts of trade restrictions on the U.S./Canadian softwood lumber trade: A spatial equilibrium analysis.** Southeastern Center for Forest Economics Research, SCFER Working Paper no.10. 26pp. + tables.
The purpose of this study is to examine the possible U.S. trade restrictions on Canadian lumber exports and to quantify their economic impact.

2891 Brannlund, R., Johansson, P.-O., and Lofgren, K.G., 1985. **An econometric analysis of aggregate sawtimber and pulpwood supply in Sweden.** Forest Science 31:595-606.
The authors present "an econometric analysis of the sawtimber market and the market for pulpwood in Sweden, The analysis is based on time-series data covering the period 1953-81." (p.595)

2892 Brannlund, R., Lundberg, L., and Wiberg, A., 1983. **Determinants of Swedish market shares for forest products in the EEC.** In: Andersson, A.E. et al., eds. Forest sector development. pp.1-24.
"The purpose of this paper is to study the determinants of the development of the market shares of Swedish exports of forest products to the EEC during the 60's and 70's, as well as the market position of its main competitors." (p.1)

2893 Buongiorno, J. and Gilless, J.K., 1983. **A model of international trade of forest products (GTM-1).** International Institute for Applied Systems Analysis. Working Paper WP-83-63. 24pp.
"The objective of this paper is to describe a method of modeling the international trade of forest products. An application of this method to the trade of newsprint between major importers and exporters is also reported." (p.1)

2894 Buongiorno, J., Huang, F.M., and Spelter, H., 1984. **Forecasting the price of lumber and plywood: Econometric model versus futures markets.** Forest Products Journal 34(7/8):13-18.
Three methods of forecasting the price of lumber and plywood were compared, including the FORSIM model developed by Data Resources Inc.

2895 Cardinal, R., 1984. **A guide to overseas markets for Georgia's timber species.** University of Georgia, Institute for Business, Small Business Development Center, International Trade Development Center. 38pp.

2896 Cardinal, R., 1984. **Export of wood products from the South--history, policy and guidelines.** University of Georgia, Institute for Business, Small Business Development

Center, International Trade Development Center. 18pp.

2897 Cardinal, R.B., 1984. **Feasibility worksheet for exporting wood products.** University of Georgia, Institute for Business, Small Business Development Center, International Trade Development Center. 9pp.

2898 Carr, N., 1984. **The marketing of trees as perceived by the processor.** In: Australian Forest Development Institute National Conference, 4th, 1984. Contributed papers. 8pp.

2899 Daniels, B.J. and Hyde, W.F., 1985. **Estimation of supply and demand for North Carolina's timber.** Southeastern Center for Forest Economics Research, SCFER Working Paper no.3. 16pp.

2900 Danielsen, E.C., 1984. **The marketing of trees as perceived by the exporter.** In: Australian Forest Development Institute National Conference, 4th, 1984. Contributed papers. 9pp.

2901 Donnelly, D.M. et al., 1983. **Wood product flows and market structure in the Rocky Mountain States.** U.S. Forest Service, Resource Bulletin RM-6. 15pp.

"This bulletin describes what is known about forest product flows into, within, and out of the Rocky Mountain states." (p.1) Co-authors, are H.E. Worth, R.W. Hasty, W.M. Aitken, and M. Morgan.

2902 Economic Commission for Europe, and FAO, 1984. **Forest products market trends in 1984 and prospects for 1985.** Timber Bulletin for Europe v.37, suppl.4. 44pp.

Includes production, import and export statistics for the European countries, Canada, and the U.S.

2903 Economic Commission for Europe, Timber Committee, 1983. **Report of the Forty-First Annual Meeting, Geneva, 1983.** Prepared by International Trade Division, National Forest Products Association, Washington, D.C. var. pag.

"This publication summarizes some of the important actions of the Timber Committee, as well as presenting certain market reports and other information that may be of value to U.S. wood products exporters."

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AUTHOR INDEX

Adams, C. E. 2763
Adams, D. 2389, 2390
Adams, D. M. 2152, 2913
Adams, R. 2246
Agee, J. K. 2556
Aitken, W. M. 2901
Aiyasamy, P. K. 2337
Albertson, M. H. 2418
Alcachupas, P. L. 2842
Alcock, J. E. 2609
Alderwegen, H. A. van 2610
Aldhous, J. R. 2150
Aldrich, D. F. 2557
Alemdag, I. S. 2151
Alfano, G. 2684
Alig, R. J. 2152, 2153
Allen, P. G. 2643, 2741
Allen, S. 2611
American Plywood Association 2880
American Pulpwood Association Inc. 2154, 2824
American Society of Consulting Arborists, Inc. 2419
Anderson, B. A. 2558
Anderson, C. G. 2702
Anderson, C. L. 2612
Anderson, D. 2489, 2613, 2614
Anderson, L. M. 2732
Anderson, M. W. 2676
Anderson, W. C. 2259
Andersson, A. E. 2391, 2392, 2393, 2394, 2834
Anderstig, C. 2881
Araman, P. A. 2882
Aramberri, J. R. 2615
Armstrong, F. H. 2250
Arnold, J. E. M. 2338, 2353
Arnold, J. R. 2673
Arnold, R. D. 2796
Arthur, L. M. 2718
Ashmole, M. 2420
Askham, L. R. 2634
Association of Consulting Foresters 2421
Aterrado, V. R. 2354
Atkinson, L. R. 2835
Atkinson, W. A. 2260
Aube, P. 2820
Australian Travel Research Conference 2616

Bacon, G. 2939
Baglein, J. W. 2211
Baidya, K. N. 2339
Bailey, E. M. 2771
Bailey, R. L. 2768
Baillet, C. 2199

Baker, F. A. 2559
Baker, H. L. 2871
Ballman, G. 2619
Bammel, G. 2625
Bancroft, L. 2592
Barbee, R. D. 2703
Barnes, C. S. 2883
Barron, E. H. 2311
Bartelheimer, P. 2254
Baskerville, G. I. 2479
Batten, D. 2884
Baudin, A. 2836
Baughman, M. J. 2560
Baumgartner, D. M. 2422
Beaulieu, J. T. 2617
Becker, G. 2553
Becker, M. 2885
Beers, B. L. 2768
Beier, R. J. 2886
Belcher, F. A. 2561
Bellinger, M. D. 2562
Bengtsson, G. 2809
Benjamin, R. O. 2212
Bentley, O. G. 2729
Berck, P. 2584, 2585, 2801, 2887
Bergersen, E. P. 2647
Bertozzi, M. 2291
Betancourt, Y. 2442
Bethea, J. M. 2312, 2313
Betters, D. R. 2888
Beuter, J. 2769
Bible, T. 2801, 2887
Bigalke, R. C. 2423
Bills, D. J. 2837
Birch, J. E. 2563
Birch, T. W. 2527, 2531
Birdsey, R. A. 2155
Biswas, A. K. 2490
Biswas, M. R. 2490
Bjerkelund, T. 2424
Bjorklund, N. E. 2618
Blackmer, S. D. 2889
Blandon, P. 2355
Blank, U. 2619
Blattenberger, G. 2564
Blyth, J. E. 2770, 2771
Blyth, J. F. 2141
Bockstael, N. E. 2664
Boeltz, K. 2553
Boerner, D. A. 2425
Boerwinkel, H. W. J. 2620
Bolle, A. W. 2565

Bolstad, K. 2867
Bommer, R. H., Jr. 2532
Bond, B. C. 2533
Bonner, G. M. 2151
Booth, T. H. 2213
Bordman, J. 2426
Boteler, F. E. 2621
Bourque, P. 2733
Boyd, R. 2292, 2293, 2309, 2890
Brabander, H. D. 2491
Bradley, R. T. 2838
Brannlund, R. 2891, 2892
Breadon, R. E. 2214
Brock, S. M. 2534
Brooks, G. N. 2265
Brown, G. F., Jr. 2712
Brown, G. N. 2427
Brown, G. W. 2946
Brown, K. L. 2479
Brown, P. J. 2613, 2622, 2659, 2758
Brown, T. C. 2682
Brown, T. L. 2623
Brown, W. G. 2624
Brusila, B. 2535
Buckingham, S. 2317
Buggel, H. 2428
Bullard, S. H. 2261, 2310, 2772
Buongiorno, J. 2251, 2395, 2853, 2893, 2894
Burde, J. H. 2786
Burdge, R. J. 2429, 2468, 2642
Burford, R. F. 2522
Burgess, J. M. S. 2704
Burke, J. 2619
Burley, J. 2318, 2469
Burrus-Bammel, L. L. 2430, 2625
Burton, R. 2626
Butts, D. B. 2566
Byrne, N. 2627

Callahan, J. C. 2175
Callinan, E. A. 2660
Cameron, D. 2356
Campbell, M. J. J. 2252
Canham, H. O. 2839
Cannon, W. N., Jr. 2739
Capelle, A. D. 2628
Cardinal, R. 2895, 2896, 2897
Carlen, O. 2536
Carr, N. 2898
Carroll, M. R. 2629
Carroll, M. S. 2210

Cassens, D. L. 2938
Celecia, J. 2358
Chapman, A. G. 2877
Chapman, I. 2411
Chappelle, D. E. 2215
Chattopadhyay, S. 2492
Chesney, C. E. 2431
Chota Inuma, J. 2372
Christensen, H. H. 2630
Christensen, J. B. 2631
Christensen, R. R. 2432, 2433
Cissel, J. H. 2216
Clark, R. N. 2632, 2640, 2665
Clark, T. W. 2294
Clausen, M. 2493
Clawson, M. 2509
Cluff, B. 2422
Cocklin, C. 2233
Cohen, M. P. 2176
Cole, D. 2661
Cole, L. A. 2217
Comstock, G. L. 2773
Condon, M. K. 2567
Condrell, W. 2295, 2296, 2297
Connaughton, K. P. 2218
Conrad, J. 2537
Conservation Foundation 2705
Convery, F. J. 2219, 2774
Conway, S. J. 2840
Cooney, T. M. 2220
Cooper, A. W. 2494
Corcoran, T. J. 2434
Cordell, H. K. 2633, 2732
Cortner, H. J. 2575
Costantoura, P. 2357
Covington, W. W. 2496
Cox, G. L. 2787
Cox, R. H. 2634
Craighead, M. R. 2775
Craver, G. C. 2156
Crawford, H. S. 2753
Crocker, T. D. 2253
Crompton, J. L. 2478, 2691
Cruz, C. A. 2435
Cuaresma, T. G. 2485
Cubbage, F. W. 2197, 2262, 2273, 2480, 2551, 2802
Currie, A. D. 2841

Danbury, D. J. 2436
Daniel, T. C. 2601
Daniels, B. J. 2292, 2776, 2899

Daniels, S. E. 2635, 2776
Danielsen, E. C. 2900
Darragh, A. J. 2636
Daru, R. D. 2751
da Silva, J. C. G. L. 2157
Davis, D. D. 2495
Davis, G. 2724
Davis, J. B. 2470
Davis, J. R. 2568
Davis, N. J. 2630
Dawson, K. J. 2637
DeBald, P. S. 2534
DeBruin, H. W. 2734
DeJong, W. 2372
Delfino, K. L. 2314
DeMars, D. J. 2826
Demeree, F. A. 2298
Dennis, D. F. 2263, 2299
de Steiguer, J. E. 2818
de Wit, A. P. W. 2399
di Castri, F. 2358
Dickenson, R. E. 2569
Dippon, D. R. 2777
Ditton, R. B. 2767
Dixon, G. E. 2274
Dochinger, L. 2495
Donnelly, D. M. 2638, 2901
Dooling, O. J. 2570
Dooling, P. J. 2706
Doorn, J. W. M. van 2639
Doron, W. D. 2707
Dorrance, R. 2571
Dove, M. R. 2359
Downing, K. B. 2632, 2640
Dripchak, K. 2774
Driver, B. L. 2647, 2659, 2754
Droste zu Hulshoff, B. von 2708
Dubiansky, V. M. 2221
Durst, P. B. 2448
Dustin, D. L. 2663
Dutrow, G. F. 2538
Duval, W. S. 2508
Dwyer, J. F. 2636, 2672
Dyer, A. A. 2572
Dykstra, D. P. 2158

Eala, R. C. 2842
Echelberger, H. E. 2660
Economic Commission for Europe 2396, 2843, 2902, 2903
Ehrenreich, J. H. 2142
Ek, A. R. 2820

Ekvall, H. 2143
Ellefson, P. V. 2316
Elovirta, P. 2437
El Serafy, S. 2844
Elwood, N. E. 2264
Emerson, P. M. 2709
Epperson, W. W., Jr. 2845
Eriksson, L. O. 2222
Ernst, C. T., Jr. 2315
European Coordination Centre for Res. and Doc. in Soc. Sciences 2641
Evans, B. 2618
Evans, J. 2810
Evans, R. D. 2755
Ewing, A. J. 2846

FAO 2319, 2517, 2843, 2847, 2902
Falconi, J. 2498
Farmer, B. M. 2320
Fazio, J. R. 2438
Feeny, D. 2177
Fehring, D. 2904
Field, D. B. 2300, 2467, 2778
Field, D. R. 2481, 2662
Field, J. E. 2276
Fight, R. D. 2803
Finlayson, W. 2482
Fischer, W. C. 2573, 2587
Fishwick, R. 2489
Flannery, B. 2858
Fletcher, W. W. 2851
Flick, W. A. 2825, 2848
Fontaine, R. G. 2178
Force, J. E. 2223
Forssell, O. 2397, 2398
Fortmann, L. 2360, 2361
Fosbroke, S. 2486
Foster, B. B. 2265, 2865
Fox, J. C. 2849
Francescon, A. 2317, 2905, 2906, 2907
Franklin, E. C. 2266, 2818
Fraser, A. 2710
Fraser, H. 2908
Frazier, J. W. 2765
French, D. W. 2559
Frome, M. 2144
Furness, C. K. 2340

Gadow, K. von 2224, 2483
Ganser, W. R., Jr. 2909
Gansner, D. A. 2574

Gardiner, J. J. 2539
Gardner, P. D. 2575, 2692
Garrett, H. E. 2362
Garrett, L. D. 2496
Gedney, D. R. 2540
Gentle, S. W. 2267
Gerritse, A. J. 2399
Gerson, R. J. 2910
Getty, M. H. 2576
Gilbert, C. E. 2789
Gill, D. R. 2850
Gill, J. D. 2541
Gill, J. G. S. 2145
Gilless, J. K. 2893
Giltmier, J. W. 2225
Glidden, W. T., Jr. 2914
Glueck, A. 2200
Godbey, G. 2439
Godfrey, E. B. 2731
Gonzalez, E. 2442
Gonzalez-Caban, A. 2577, 2590
Gorte, J. F. 2851
Gottlieb, K. C. 2721
Graber, D. M. 2578
Grafton, W. N. 2534
Graham-Tomasi, T. 2268, 2515, 2518
Gramann, J. H. 2542, 2642
Grantham, J. B. 2807
Greber, B. J. 2220
Green, T. L. 2744
Gregersen, H. M. 2323, 2324, 2852
Gregg, W. P., Jr. 2708
Grossmann, W. D. 2317, 2400
Guder, F. 2853
Guldin, R. W. 2779, 2780
Gundermann, E. 2201
Gupta, M. P. 2341
Guynn, D. C. 2757
Guynn, D. C., Jr. 2756

Hackett, R. L. 2159
Hadi, Y. 2811
Hadley, M. 2358
Hagerty, J. K. 2643
Hair, D. 2812, 2813
Halffter, G. 2711
Halkett, J. C. 2497
Hall, E. J. 2523
Ham, D. L. 2757
Hamilton, T. E. 2226, 2243
Hamilton-Smith, E. 2644

Hammitt, W. E. 2645, 2712
Hanemann, W. M. 2646
Hanley, D. 2422
Hardcastle, P. D. 2318
Hardy, Y. 2440
Harlan, W. T. 2227
Harness, V. L. 2911
Harou, P. A. 2498, 2543
Harpen, A. H. 2269
Harris, C. H. 2647
Harris, E. H. M. 2471, 2499
Harrison, H. A. 2562
Hart, R. A. de J. 2379
Hart, W. S. 2912
Hartmann, L. A. 2633
Hasel, K. 2179, 2180
Hassler, C. C. 2867
Hasty, R. W. 2901
Haub, H. 2258
Haygreen, J. 2472, 2852
Haynes, R. W. 2152, 2913
Haynes, W. N. 2814
Heberlein, T. A. 2684
Heikinheimo, L. 2554
Heikkila, A. 2619
Heinrichs, J. 2432
Helfand, G. E. 2709
Helles, F. 2544
Hendee, J. C. 2228, 2441
Henley, J. W. 2807
Herrera, F. 2442
Herrick, O. W. 2574
Heuveldop, J. 2365
Hewett, C. E. 2229, 2231, 2914
Heytze, J. C. 2648
Hill, B. J. 2915
Hill, D. B. 2230
Hite, M. P. 2231
Hobaugh, M. E. 2735
Hoeksema, R. 2804
Hof, J. G. 2649, 2888
Hoganson, H. M. 2820
Hokans, R. H. 2805
Holland, I. 2852
Holland, S. M. 2478
Holopainen, V. 2916
Hoover, W. L. 2301, 2854
Hoppe, W. 2804
Hoskins, M. 2385
Hoskins, M. W. 2342
Hosokawa, R. T. 2157, 2232
Housley, R. M. 2579

Howard, J. O. 2826
Howard, T. E. 2781
Huang, F. M. 2894
Hueth, D. 2650
Hughes, J. D. 2181
Hultkrantz, L. 2401
Hummel, F. 2202
Humphreys, S. K. 2631
Humphries, W. C., Jr. 2270, 2806
Hunt, D. L. 2807
Hutchins, C. C., Jr. 2160, 2782
Huxley, P. A. 2363
Hyde, W. F. 2473, 2474, 2564, 2776, 2789, 2899
Hyman, E. L. 2325, 2364

Ihalainen, R. 2437
Impens, R. A. 2736
Ince, P. J. 2807
Ingles, A. 2580
Instituto Forestal (Santiago, Chile) 2402, 2917
Inter-American Development Bank 2321
International Union of Forestry Research Organizations 2651
Irland, L. C. 2443, 2581, 2855

Jackson, R. G. 2719
Jacobi, C. D. 2652
Jacovelli, P. A. 2370
Jafari, J. 2653
Jain, S. 2343
Japan Forest Administration Research Council 2918
Japan Lumber Importers' Association 2919
Jarvelainen, V.-P. 2545
Jen, I-an 2271
Jensen, E. C. 2444
Johansson, B. 2834, 2856, 2884
Johansson, P.-O. 2815, 2891
Johnson, D. R. 2481
Johnson, J. D. 2816, 2920
Johnson, K. 2760
Johnston, P. A. 2737
Jones, J. G. 2829
Jones, K. D. 2174
Jubenville, A. 2654
Julien, F. A. 2146, 2147, 2148
Juslin, H. 2921

Kaiser, H. F. 2316, 2549, 2562, 2649
Kalgraf, K. 2403
Kallio, E. 2484, 2867

Kallio, M. 2390, 2404, 2817, 2884, 2922
Kaplan, R. 2746
Kapp, G. 2182
Kartez, J. D. 2524
Kassier, H. W. 2799
Keegan, C. E., III 2172
Keiter, R. B. 2713
Kellert, S. R. 2758, 2759
Kellison, R. C. 2823
Kelly, J. F. 2166
Kelly, J. R. 2655
Kemp, R. H. 2326, 2327
Kempe, C. 2403
Kennedy, J. 2445
Kennedy, R. W. 2161
Kent, A. T. 2699
Keppie, D. M. 2446
Kerrick, M. A. 2760
Kessler, G. D. 2878
Ketcham, D. 2500
Kielbaso, J. J. 2738
Kilgore, B. M. 2587
Kilkki, P. 2783
Kincaid, J. C. 2264
Kingsley, N. P. 2534
Kinney, W. 2730
Kirjasniemi, M. 2922
Klemperer, W. D. 2772
Knight, H. A. 2162, 2282
Knopf, R. C. 2679, 2681
Koenemann, E. J. 2660
Komarek, E. V. 2761
Kopetz, H. 2784
Kopp, H. 2656
Kornai, G. 2906
Korte, R. 2619
Koshika, K. 2183
Kossuth, S. V. 2447
Kostichka, C. J. 2739
Kovalicky, T. 2582
Krinard, R. M. 2259
Kronrad, G. D. 2302, 2818
Kroth, W. 2254, 2255, 2583
Krott, M. 2203
Krugman, S. L. 2328
Krutilla, K. 2890
Kumar, R. 2923
Kung, F. H. 2931
Kurtz, W. B. 2362, 2542, 2546

Laarman, J. G. 2448
Lacko, M. 2555

Lage, A. 2184
Lagemann, J. 2365
Langford, R. C. 2740
Lanly, J. P. 2163
Layton, R. D. 2946
LeDoux, C. B. 2803
Leitch, J. A. 2667
Leiviska, K. 2857
Leuschner, W. A. 2584, 2585
Lewis, B. J. 2484, 2525
Lichty, R. W. 2858
Lime, D. W. 2678, 2680, 2702
Linnard, W. 2185
Locht, L. J. 2610
Loffler, H. 2785
Lofgren, K.-G. 2256, 2815, 2891
Long, R. B. 2303
Longeran, S. C. 2233
Lonnstedt, L. 2317, 2392, 2403, 2405, 2406, 2407, 2413
Loomis, J. B. 2638
Lopoukhine, N. 2586
Lortie, M. 2547
Loschau, M. 2449
Lotan, J. E. 2587
Lucas, R. C. 2714
Lundberg, L. 2892
Lundgren, A. L. 2234
Lundgren, B. 2501
Luppold, W. G. 2924, 2925
Lustig, T. D. 2762
Lyons, J. R. 2548, 2766

Machlis, G. E. 2657
Mack, R. J. 2543
MacKay, D. 2502
Mackie, C. 2503
Mackintosh, B. 2186, 2187
Major, M. 2859
Maki, E. 2926
Maki, W. R. 2658, 2865
Malcolm, D. C. 2145
Malkonen, E. 2475
Malm, R. L. 2272
Manfredo, M. J. 2659
Mangan, R. J. 2588
Mangun, W. R. 2766
Manning, R. E. 2660, 2715
Marion, J. 2661
Marsinko, A. 2315, 2927
Martinson, K. S. 2662
Marty, T. 2542

Marty, T. D. 2546
Masters, S. 2928
Matthews, M. L. 2243
Maurer, E. J. 2242
Mawson, J. C. 2543
Max, W. B. 2304
Maxwell, J. 2929
May, D. M. 2930
Maydell, H. J. von 2366
McAvoy, L. H. 2663
McCollum, M. G. 2272
McConnell, K. E. 2664
McCool, S. F. 2665, 2686
McCormack, M., Jr. 2453
McCurdy, D. R. 2786, 2931
McDonald, C. D. 2645
McDowell, H. 2589
McEwen, D. N. 2660
McGaughey, S. E. 2323, 2324, 2329, 2408
McKelvey, P. J. 2450
McKetta, C. W. 2577, 2590
McKillop, W. 2932
McLain, W. H. 2860
McLaughlin, W. J. 2223
McNutt, J. A. 2260
McPherson, E. G. 2451
McWilliams, W. H. 2170
Meacham, C. M. 2452
Mead, W. J. 2827
Meimban, J. J., III 2485
Melcher, J. 2522
Mendes, J. B. 2232
Mendoza, B. A. 2485
Merrifield, D. E. 2861
Methven, I. 2453
Mikola, P. 2666
Millen, A. A. 2495
Miller, H. G. 2454
Milliken, R. B. 2273, 2521
Mills, T. J. 2274, 2564, 2577, 2591, 2692, 2787
Mincolla, J A. 2445
Minzava, E. M. 2338
Mittleider, J. F. 2667
Montana Forestry Division 2455
Montgomery, A. A. 2806
Moore, A. W. 2716
More, T. 2643
More, T. A. 2741
Moredo, F. C. 2485
Morgan, A. 2413
Morgan, M. 2901
Morrison, H. 2933

Moyer, W. J. 2169
Mueller-Darss, H, 2367, 2368
Muir, K. 2626
Muller, A. 2536
Mundy, A. N. 2668
Munson, K. R. 2777
Mutch, R. W. 2587

Nagaraja, S. 2344
Nagy, A. 2906
Nair, P. K. R. 2369
Nanninga, P. M. 2568
National Recreation & Park Assoc. 2690
Nature Conservancy Council 2717
Nautiyal, J. C. 2275
Neal, J. 2934
Neidich, G. 2296
Neil, P. E. 2370
Nelson, L. J. 2638
Nelson, M. 2330
Netsch, W. 2504
New York State Office of Parks, Recreation & Historic Preservation 2669
Newman, D. H. 2416, 2788, 2789
Nichols, T. 2592
Nielsen, D. B. 2731
Niesslein, E. 2204, 2205
Nieuwenhuis, M. A. 2434
Nilsson, S. 2935
Noe, F. P. 2645
Nordin, V. J. 2456
Norris, F. 2934
North Carolina Forestry Association 2235
North Carolina State Forest Fertilization Cooperative 2790
Nygren, H. T. 2236
Nygren, T. 2237
Nyhus, D. 2409
Nyyssonen, A. 2516

Obermiller, F. 2731
Obura, W. B. O. 2331
Obyc, R. J. 2791
O'Carroll, N. 2188
Okeefe, T. G. 2486, 2488
Oliveira, R. A. 2718
Oliver, A. C. 2457
Olsson, M.-O. 2391, 2392
Oltremari, J. V. 2719
Ondro, W. J. 2862
Ortman, T. L. 2803
Ostrander, R. 2683

O'Toole, R. 2238, 2670, 2828
Owen, R. B., Jr. 2446
Owino, F. 2332, 2371
Oxby, C. 2505

Pacific Rim Publishing Co. 2936
Padoch, C. 2372
Paige, J. C. 2189
Palo, M. S. 2206
Papastavrou, A. C. 2718
Pare, G. 2526
Parsons, D. 2592
Patel, V. J. 2373
Patterson, W. A., III 2498
Paul, R. 2736
Payandeh, B. 2276
Payne, W. J. A. 2374
Peck, T. J. 2458
Pedersen, R. J. 2760
Pelcner, J. 2257
Pellek, R. 2506
Perkuhn, F. H. 2552
Persaud, W. H. 2410
Peterson, G. L. 2636, 2671, 2672, 2673
Peterson, P. 2858
Peterson, R. M. 2522, 2819
Phelps, R. B. 2937
Phillips, C. B. 2593
Picornell, P. 2863
Plochmann, R. 2201, 2207
Polzin, P. E. 2218
Poore, D. 2507
Pope, C. A., III 2763
Posey, D. A. 2375
Powell, L. G. 2674
Presley, J. J. 2594
Price, C. 2631, 2792
Przeclawski, K. 2675
Pulhin, J. M. 2345
Pulkki, R. 2947
Puusepp, J. 2277
Pyne, S. J. 2595

Rai, S. N. 2346
Raies, E. R. 2354
Raile, G. K. 2164
Raintree, J. B. 2376, 2377, 2378
Ramdial, B. S. 2411
Rasor, J. F. 2278
Rea, T. 2190

Reardon, S. 2165
Redmond, C. H. 2262, 2865
Reed, F. L. C. 2459, 2460
Reichenbach, M. R. 2552
Reiling, S. D. 2676
Reilly, W. K. 2720
Remmington, S. B. 2263
Reunla, A. 2528
Rexler, R. A. 2239
Reynolds, D. 2661
Rezende, J. L. 2275
Richardson, S. D. 2529
Riddell, J. 2360
Riihinen, P. 2412
Rinehart, J. A. 2279
Ringe, J. M. 2854
Risbrudt, C. D. 2316, 2480, 2868
Robbins, W. G. 2191
Robertson, G. C. 2764
Robie, K. H. 2280
Robson, H. L. 2742
Rocheleau, D. 2361
Rogelj, S. 2677
Roggenbuck, J. W. 2694
Rose, D. W. 2596, 2820
Rosenthal, D. H. 2672
Rosson, J. F., Jr. 2166
Rothman, H. 2192
Royer, J. P. 2549, 2550
Ruderman, F. K. 2864
Rudis, V. A. 2166
Runge, C. F. 2721
Runyon, K. L. 2581
Russell, B. P. 2281
Ryan, P. P. 2888

Salleh Nor, M. 2469
Salminen, S. 2167
Salo, S. 2922
Sanchez C., H. 2334
Saunders, J. C. 2213
Savill, P. S. 2240
Schabel, H. G. 2743
Schallau, C. 2218
Schmid-Haas, P. 2597
Schneider, M. H. 2461
Schoolmaster, F. A. 2765
Schreyer, R. 2617, 2678, 2679, 2680, 2681
Schroeder, H. W. 2682, 2744
Schroeder, J. G. 2282
Schuler, A. 2193

Schulz, H. 2793
Schuster, E. G. 2829
Sebastian, L. P. 2461
Sedell, J. R. 2508
Sedjo, R. A. 2283, 2509, 2530
Seldon, B. J. 2476
Senft, J. F. 2938
Seppala, R. 2390, 2413
Settree, J. R. 2284
Shabman, L. 2683
Shafer, E. L. 2470
Shah, S. A. 2347
Shallau, C. H. 2865
Shaw, W. W. 2766
Shelby, B. 2684, 2685
Shinkle, P. B. 2787
Sholto-Douglas, J. 2379
Shottafer, J. E. 2461
Siaguru, P. 2866
Sieber, M. 2194
Siegel, W. C. 2197, 2305, 2306, 2794
Silver, L. 2510
Simonsen, L. 2619
Sinclair, S. A. 2867, 2883
Sirmon, J. M. 2519
Sison, J. C. 2354
Sizemore, W. R. 2285
Skinner, T. M. 2480, 2551
Slocum, R. 2598
Smart, J. A. J. 2939
Smego, J. H. 2940
Smith, C. R. 2462
Smith, N. 2424
Smith, P. E. 2722
Smith, W. B. 2168, 2770, 2771
Snepenger, D. J. 2767
Society of American Foresters 2463, 2808
Soismaa, M. 2404
Solberg, B. 2414
Sorg, C. F. 2638
South, P. M. 2286
Spelter, H. 2894, 2941
Spencer, J. S., Jr. 2169
Spencer, R. D. 2241
Spruijt, A. P. 2477
Stairs, G. R. 2242, 2243
Stankey, G. H. 2622, 2665, 2686, 2723
Stark, N. M. 2511
Stark, R. W. 2599, 2605
Steele, P. H. 2868
Steinlin, H. 2208, 2512
Stere, D. H. 2244

Stevens, M. E. 2464
Stevens, T. H. 2643, 2741
Stewart, P. J. 2209
Stirrat, R. 2745
Stohlgren, T. 2592
Straka, T. J. 2465, 2795
Strangh, L. 2869
Strees, A. 2852, 2870
Strickler, J. K. 2169
Strong, E. J. 2650
Studier, D. D. 2946
Stynes, D. J. 2672, 2673
Sullivan, B. J. 2572
Sun, O. 2287
Sveriges Lantbruksuniversitet, Institutionen for Skogstaxering 2307

Talbert, J. T. 2796
Talbot, J. F. 2746
Tandy, C. W. 2600
Tarver, C. M. 2280
Tate, R. L. 2747, 2748, 2749
Taylor, J. G. 2601
Taylor, S. A. 2308
Tedder, P. L. 2821
Teeguarden, D. E. 2520
Teeter, L. D. 2572
Texas Parks and Wildlife Department 2687
Thomas, C. E. 2170
Thomas, J. K. 2763
Thomassin, P. J. 2871
Thompson, M. A. 2797
Thompson, R. D. 2806
Thomson, T. A. 2260
Thorbecke, E. 2408
Thrupp, L.-A. 2348
Tips, W. E. J. 2751
Tisseverasinghe, A. E. K. 2198
Tiwari, K. M. 2349, 2350, 2351
Todd, H. R. 2688
Todhunter, R. A. 2195
Towle, E. L. 2602, 2603
Travis, A. S. 2689
Trokey, C. B. 2546
Tucker, R. 2196
Turnbull, G. K. 2309
Tutka, J. 2257
Twight, B. W. 2210
Tyson, B. 2724

U.S. Department of the Interior 2690
U.S. Foreign Agricultural Service 2942

U.S. General Accounting Office 2830, 2831, 2832, 2833
U.S. Office of Technology Assessment 2872
Unruh, J. 2372
Uronen, P. 2415
Utter, J. 2725
Uusitalo, M. 2171
Uutela, E. 2922
Uysal, M. 2691

Valdes S., H. 2334, 2335
van der Sijde, H. A. 2798
van Doorn, J. W. M. see Doorn, J. W. M. van
Van Doren, C. S. 2478
VanHooser, D. D. 2172
Van Wagner, C. E. 2604
Van Wyk, G. 2798
Vasievich, J. M. 2288, 2289
Vaske, J. J. 2684
Vaux, H. J., Jr. 2692
Vedant, C. S. 2352
Vergara, N. T. 2380, 2381, 2382, 2383, 2384
Vermont Department of Forests, Parks and Recreation 2466
Vesikallio, H. 2948
Vicary, B. P. 2434
von Gadow, K. see Gadow, K. von
von Maydell, H. J. see Maydell, H. J. von
Voss, G. 2204

Wagar, J. A. 2750
Walker, H. D. 2245, 2467
Wall, B. R. 2173
Wall, G. 2693
Wallace, T. D. 2416
Wardle, P. A. 2149
Warren, D. D. 2864
Waters, W. E. 2599, 2605
Watson, A. E. 2694
Watson, J. 2644, 2726
Watson, R. S. 2417
Watson, W. F. 2795
Wayburn, E. 2727
Weaver, G. H. 2310
Weaver, P. L. 2155, 2752
Weber, F. 2385
Webster, H. H. 2336, 2943
Weimann, H. J. 2258
Weintraub, A. 2246
Weir, R. J. 2796
Wellman, J. D. 2652
Wenderoth, E. L. 2657

Wessels, N. O. 2799
West, P. C. 2695
Western Wood Products Association 2873
Whaley, R. S. 2247
Whiteside, I. D. 2822
Wibe, S. 2874, 2875, 2876
Wiberg, A. 2892
Widaman, K. F. 2575
Wiersum, K. F. 2386
Wiff, M. 2387
Wigston, D. L. 2866
Wiitala, M. R. 2606
Williams, D. R. 2680, 2681, 2696
Williams, S. 2697
Williamson, T. B. 2862
Wisdom, H. W. 2944
Wishart, J. E. 2312
Wolf, R. E. 2248
Wong, K. M. 2513
Wood, D. L. 2605
Wood, T. J. 2698
Worf, W. A. 2607
Worley, D. P. 2541
Worth, H. E. 2901
Wray, R. D. 2877
Wuerthner, G. 2728

Yambo, M. 2487
Yellappa Reddy, A. N. 2879
Yellin, L. 2246
Yoho, J. G. 2945
Yost, N. C. 2514
Young, A. 2376, 2388
Young, R. A. 2552, 2699
Young, T. 2251
Yu, J.-M. 2700

Zabel, R. 2422
Zackrisson, U. 2391
Zeichick, H. H. 2488
Zimmermann, W. 2608
Zinn, G. W. 2174
Zipper, C. E. 2800
Zivnuska, J. 2290
Zobel, B. 2823
Zumeta, D. C. 2249
Zundel, R. 2701